Although works related to curriculum planning may be traced back to the ancient philosophers as well as to writers of the 19th century, a number of published works mark 1918 as the real beginning of curriculum planning and development as a field of special study. The writings of Franklin Bobbitt, appearing in the 1920's, were particularly significant in establishing curriculum-making as a distinct field of study. Early curriculum specialists were inclined toward a simplistic mode of thought, regarding complex problems as solvable by such easy means as observing, measuring, or consensus. Curriculum criteria included the social utility of the courses offered, as well as two distinct dichotomies, one distinguishing school subjects as academic or practical and one distinguishing school populations as college preparatory or noncollege preparatory. A critical reexamination of the curriculum field's literary and practical inheritance is crucial if it is to become an increasingly meaningful field of study in its second half-century.
TECHNOLOGY
and the
CURRICULUM

Paul W. F. Witt
Editor

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TECHNOLOGY AND THE CURRICULUM contains addresses presented at the Curriculum Conference at Teachers College, Columbia University. Participants analyze the vast changes resulting from our advancing technology and suggest what the educator's response should be. A central theme is that the use of technology in education is inevitable and highly desirable provided that the teacher and curriculum specialist play a central role in its design and use as a humanizing factor.
Editor's Preface

The Teachers College Department of Curriculum and Teaching chose “Technology and the Curriculum” as the theme of its 1967 Curriculum Conference, the fourth in its present biennial series. The department made this choice recognizing the significance of technology in education and believing that curriculum specialists can and must play central roles not only in the design of educational technology but also in the construction of curricula that will enable young Americans to cope successfully with their technological age. The papers read at the conference are presented in this publication.

The conference program was designed so that the opening presentation would provide an analytical view of technology and make visible its ever-expanding and increasingly powerful influences. This Alice Mary Hilton accomplishes in her brilliant dissertation on cybernation and its impact on American society. She challenges educators and lay citizens to help man achieve true independence so that he may become “Man, the Creator.” Her paper makes clear that technology, if properly controlled, can be a humanizing rather than a dehumanizing factor.

A more sharply focused view of technology’s influence on present-day society—its impact on economic systems—is presented by Eli Ginzberg in his authoritative statement on manpower needs. Professor Ginzberg delineates the educational implications of these needs, particularly with reference to the education of the disadvantaged and the continuing education of adults, and emphasizes the importance of appropriate and effective school curricula. Professor Ginzberg’s allegation that many schools fail to perform effectively and his contention that society must assess their output and hold educational authorities accountable for this output merit very serious consideration.

The role of the knowledge industry in responding to society’s demand for a more relevant education is described by Robert E. Slaughter. His recognition of the knowledge industry’s dependence on professional educators and his belief that the development of educational technology requires a partnership of industry and education denies current fears of an industry take-over in education. For the future Mr. Slaughter sees greater use of computers to individualize
learning, an expansion of the systems approach in instruction, and a greater use of communications technology.

The central and strategic role of teachers, curriculum specialists, and professors of education in the advancement of educational technology and the necessity of preparing teachers to use the new technology are themes discussed by Paul W. F. Witt. He stresses the importance of the contributions instructional materials specialists can make in developing media resources and in educating teachers to use them. Noting the shortage of media specialists, Professor Witt urges his fellow educators in curriculum and teacher education to help clarify the role of media specialists and to lend their support to the development of more effective programs for preparing these specialists and to the recruitment of promising young people to work in this area.

To provide conference participants with a historical perspective of the field of curriculum Herbert M. Kliebard was invited to read a paper on the development of curriculum theory. Professor Kliebard presents a fascinating and informative account of the views of curriculum which have emerged since 1893. His analysis of the effect of the criterion of social utility on curriculum development coupled with his discussion of the closely related dichotomies of the academic and the practical subjects and of college preparatory and non-college preparatory pupils offers a highly useful frame of reference for assessing present and evolving theories of curriculum and educational technology.

Robert M. W. Travers notes that a sound technology of education cannot be developed either on the basis of evolving practical experience or by borrowing from other areas but must be grounded on scientific knowledge regarding learning. He points out the limitations of using the research on operant conditioning as the sole basis for developing educational technology and suggests additional sources of knowledge, including several illustrative psychological concepts, which should be considered in designing new media. He decries the use of new media to achieve traditional goals and urges, most wisely, that the new technology be related to new objectives. He is pertinently critical of efforts to employ the new technology to speed up learning, especially the kind that takes place in most schools. Rather, he maintains, educators should be seeking ways to help people make better use of knowledge and to learn to use knowledge-storing devices effectively and efficiently.

Joseph C. Grannis, in an essay on which his conference presentation was based, describes three models of society represented in schools—the family, factory, and corporation. Holding that none of these is suitable for today's schools, especially for those serving the-
disadvantaged, Professor Grannis argues for a major modification of
the structure and operation of schools so that they may serve both the
individual and the community more effectively. He offers specific
suggestions as to how this might be accomplished.

The influence of educational technology on the curriculum specialist’s role is made evident by Neil P. Atkins in his description of the
efforts of a middle school faculty to find ways to use a dial-access
installation to individualize instruction. As the curriculum specialist
in this situation, Dr. Atkins learned that the most productive approach
was to involve the teachers directly in the task and help them discover
for themselves how to use the new equipment. Dr. Atkins’ experi-
ence in this project led him to attach top priority to inservice teacher
education and the creation of an adequate supply of appropriate ma-
terials as tasks of the curriculum specialist in the development of
educational technology.

Maxine Greene accepts the irreversibility of the advance of educa-
tional technology and indicates no desire to dispute the advantages
claimed for the new instructional media and devices. But, with the
humanist’s point of view, she insists that both the “person-centered”
perspective and the machine model are essential for explaining teach-
ing and learning and for curriculum making. She leaves no doubt that
the teacher, not the technology, must always be in charge.

Appreciation is expressed to the many people who had a part in
the conference. In addition to the speakers, special thanks is ex-
tended to Roma Gans, Alice Miel, and Dwight Teel for their participa-
tion in the panel discussion that followed Alice Mary Hilton’s
speech. Grateful acknowledgement is made of the assistance of con-
ference members who served as discussion leaders and the doctoral
candidates in Curriculum and Teaching who served as recorders and
assistants. Arno A. Bellack, Bruce R. Joyce, Dorothy M. McGeoch,
Kenneth D. Wann, and Alice Miel were centrally involved in planning
the conference. They and other members of the Department of
Curriculum and Teaching also helped in many other ways. Important
contributions were made by Helen G. Hardy and Kathy Carn. The
efforts of all these colleagues are greatly appreciated.

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Committee
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There seems to be something anomalous and perhaps even subversive about attempting to see the field of curriculum in some kind of historical perspective. As a field of study, we have been a peculiarly ahistorical lot: This may be due in part to the special pleading of many curriculum leaders that we sweep away the cobwebs of the past and turn to the future untrammeled by the mistakes of our forbears and the stultifying influence of tradition. I do not propose to engage in prolonged speculation about what may or may not be the possible consequences of such an ahistorical posture. We do know, however, that other fields of study do seem to maintain some kind of dialogue with their past and tend to be rather self-conscious about where they are as a field in relation to where they have been. In the curriculum field, on the other hand, issues seem to arise ex nihilo; each generation is left to discover anew the persistent and perplexing questions that characterize the field. As we look at the problem of a curriculum for the disadvantaged, for example, we usually fail to see it in the perspective of the larger issue of curriculum differentiation, not recognizing that our present concern is actually part of a reoccurring debate, with roots in our recent past. This inability to see our field in perspective also results in our tendency to repeat the rallying cries and slogans that had their origins in a different intellectual climate and a different social milieu as if they had an immediacy that they no longer possess. We continue to regard as
current and relevant certain watchwords which may or may not have
had some significance in the past, but which have lost much of the
meaning they may once have had. In other words, our inability or
our unwillingness to develop a sense of where we are in relation
to where we have been in curriculum has created a kind of astigmatism
such that we cannot see the past for the present nor the present for
the past.

THE BEGINNINGS

If we were to give conscious and systematic attention to our heritage
as a field of study, where would we begin? Such a starting point is
always arbitrary to some extent. From the time that man has given
conscious attention to how he should educate his children, he has
concerned himself with what we would now regard as curriculum
questions. Every major philosopher from Plato on who has con-
sidered education at all has also considered the curriculum. But the
self-conscious identification of certain educational leaders as cur-
riculum specialists is a rather recent development. It is, by and large,
a twentieth-century phenomenon.

Just before the turn of this century, an unusual amount of activity
in the educational world was directed towards the curriculum. The
curriculum became a popular issue. In 1893, for example, the famous
Committee of Ten under its chairman, Charles W. Eliot, issued its con-
troversial report. It considered such questions as whether high school
education should be for college or for "life," what courses of study
should be made available, what subjects should be offered and for
how many years, whether certain subjects should be regarded as dis-
tractly college preparatory, and what should be taught in some of
these subjects, all of which we would now consider curriculum ques-
tions. The controversy that the Committee of Ten report engen-
dered had much to do with the creation of another important national
committee to consider these matters, Augustus Nightingale’s Com-
mittee on College Entrance Requirements. During this period,
we also find the devoted American followers of Johann Friedrich
Herbart vigorously propagating one version of his teaching and giving
systematic attention to curriculum issues. During this period, too,
we find John Dewey experimenting with the curriculum in the Labo-
atory School at the University of Chicago and challenging tradi-
tional curriculum practices. But neither Eliot, Nightingale, the Her-
bartians, nor Dewey identified themselves as curriculum specialists
nor was there a readily identifiable field of curriculum specialization
at that time.
THE CURRICULUM FIELD IN RETROSPECT

If I had to pinpoint the actual year when curriculum emerged as a self-conscious field of study, I would probably choose 1918, not only because of the appearance of Franklin Bobbitt's *The Curriculum*,¹ which was the first full-length book on curriculum, but also because of Alexander Inglis' brilliant *Principles of Secondary Education*, which, although not exclusively a curriculum book, was concerned primarily with curriculum questions. In 1918 too, the *Teachers College Record* published an article by one of the younger members of the Teachers College faculty, William Heard Kilpatrick. That article, "The Project Method," was later to have a profound effect on the activity movement in curriculum. Finally, in 1918, the Commission on the Reorganization of Secondary Education issued its *Cardinal Principles of Secondary Education* with its widely quoted seven aims, a report which set the fashion for the consideration of curricular objectives. In short, 1918 was a vintage year in curriculum.

Of the four works cited, however, Inglis' and Kilpatrick's must be regarded essentially as works of individual genius, while Bobbitt's and the *Cardinal Principles* report were distinctive products of their time and their intellectual and social milieu. It was Bobbitt, who after publication of *Curriculum-Making in Los Angeles* in 1922 and *How to Make a Curriculum* in 1924, emerged as the foremost practitioner in the field of curriculum, indeed the prototype of the curriculum specialist. Operationally, the coming into its own of the curriculum field may have taken place in this period of the early 1920's. This was the time when curriculum revision became a kind of national pastime and when curriculum reform was undertaken with great enthusiasm by the Department of Superintendence. The seven aims of the *Cardinal Principles* report, of course, continued to be cited decades later as the ultimate in wisdom on curricular objectives.

If we are to see the field of curriculum in perspective, then, it is Bobbitt's work and the work of his like-minded contemporaries (like W. W. Charters) as well as the work of his intellectual heirs (like Ralph Tyler) that we must examine. Their doctrines, rather than those of a Dewey, appear to have helped shape and mold the field of curriculum. As George Herbert Palmer said, "The tendencies of an age appear more distinctly in its writers of inferior rank than in those of commanding genius. These latter tell of past and future as well as of the

age in which they live. They are for all time. But on the sensitive responsive souls, of less creative power, current ideals record themselves with clearness.” One could even argue, as does Karier, that "while Dewey was being feted by old and young alike, American culture was rapidly building an educational system which in many respects was the very antithesis of what he was talking about."

In general, I think it is historically questionable to associate the origins of the curriculum field with the educational ideas of Dewey. His approach to individual growth as well as his social ideals were quite at odds with the basic outlook of those men who had most to do with shaping and molding the field. What might be called the second generation of curriculum specialists, the one that included L. Thomas Hopkins and Hollis Caswell, was certainly more imbued with Dewey’s philosophy of education and undoubtedly made a conscious effort to introduce Dewey’s ideas into the curriculum dialogue. Even Bobbitt, late in his career, made a dramatic shift in emphasis. But the imprint of the formative years of the curriculum movement on the field was already there, and, to a large extent, it has been indelible. It is with these formative years that I am here concerned.

THE FORMATIVE YEARS

What kind of age then was the one in which the field of curriculum was born and nurtured? What were the intellectual climate and prevailing mode of thought that would bring a Franklin Bobbitt to the forefront? It was a period when the methods of science were seen as readily applicable to human affairs; it was a period of reaction against what was regarded as the dull and mechanistic schooling of the nineteenth century; it was a period of concern for Americanizing immigrants; and it was a period when the public schools were being regarded, by some sociologists and educationists at least, as a major agency for social control of the individual.

Before we begin to examine some of these doctrines and how they influenced the work of Bobbitt and his fellow curriculum specialists, let us see if we can identify, at least in rough outline, what Arthur Lovejoy has called the “implicit or incompletely explicit assumptions, or more or less unconscious mental habits, operating in the thought..."
of an individual or a generation." In other words, there are times when a common pattern of thought permeates a period—a pattern, which, although partly or even fully unconscious, strongly influences the ways of attacking problems and the strategies created for their solution. These patterns of thought are "rather tacitly presupposed than formally expressed and argued for, the ways of thinking which seem so natural and inevitable that they are not scrutinized with the eye of logical self-consciousness." One such way of thinking, for example, is a "Hamlet-like" sense of the great complexity of things, accompanied at times by a kind of intellectual inaction prompted by consideration of the whole spectrum of factors involved. Quite the reverse was true of the generation that created the seedbed for the flowering of curriculum as an area of specialization. By and large, the men who set the intellectual pattern from about 1905 on into the 1920's were characterized by what Lovejoy calls "esprits simplistes—minds which habitually tend to assume that simple solutions can be found for the problems they deal with." This "presumption of simplicity," Lovejoy warns, is often accompanied by an ostentatious show of modesty which sometimes tends to disguise it, but its essential feature is that great and complex questions such as, "What knowledge is of most worth?" are held to be susceptible to solution essentially by such easy means as observing and counting and measuring and, if worse comes to worse, by consensus.

Associated with the underlying mode of thought are what Lovejoy calls "dialectical motives," logical or methodological assumptions which are also in some degree unconscious or at least unstated. Here we could contrast the "organismic or flower-in-the-crannied-wall motive" on one hand with the "nominalistic motive" on the other. The former assumes great complexity in simple objects and in the relationships among elements in a system. If anything, the organismic or flower-in-the-crannied-wall motive tends to exaggerate the complexities of problems and issues. The nominalistic motive, on the other hand (which can be seen as characteristic of the generation into which the curriculum field was born), expresses itself in the attempt to "reduce the meaning of all general notions to an enumeration of . . . concrete and sensible particulars." And if anything characterizes the thinking of the early curriculum specialists and, to some extent our own thinking, it is this desire to enumerate and particularize,
hence our faith in the six principles of good school-community relations or the four or five or nineteen steps in curriculum development. Somehow, we feel, if we can only set down the right number of steps in the right order, we will have accomplished the major portion of the task before us.

This tendency toward a simplistic mode of thought and toward enumeration and particularization as a form of attack is evident in the work of Bobbitt, most particularly in his How to Make a Curriculum, and in the works of his contemporaries who wrote on curriculum issues. The following exposition of his central theory in The Curriculum is typical:

The central theory is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, attitudes, habits, appreciations, and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite, and particularized. The curriculum will then be that series of experiences which children and youth must have by way of attaining those objectives.9

Here, in one passage, is the quintessence of early curriculum thinking: the simplistic approach to a complex problem, the strong emphasis on specification and enumeration, even the suggestion of a differentiated curriculum for different social classes, something I shall touch upon later. It is hard to say whether the esprits simplistes are still with us, but certainly our present insistence that curricular objectives be not only specific and particular, but also “behavioral” (i.e., observable) represents a strong survival of this early mode of attack. In concluding this first full-length treatment of the curriculum, Bobbitt set as the major task for the profession, the “defining [of] innumerable specific objectives; and then of determining the countless pupil-experiences that must be induced by way of bringing the children to attain the objectives.” 10 In two later works, Curriculum-Making in Los Angeles and How to Make a Curriculum, Bobbitt concentrated on the first part of that task. In these books, hundreds of curricular objectives were set forth with great specificity and in great detail. But the penchant for enumeration did not necessarily imply long

10 Ibid., p. 282.
lists. In the *Cardinal Principles of Secondary Education*, the commission of which Clarence Kingsley was the chairman limited itself to only seven aims, and subsequent lists tended to follow that general pattern. In addition, the simplistic notion that the *source* of curricular objectives is some categorization of man's actual activities, an idea central to both the *Cardinal Principles* report and Bobbitt's early work, continued to be a fundamental assumption in subsequent work in curriculum. Herbert Spencer, of course, had set forth that notion earlier, but Kingsley's revival of the idea found a particularly receptive audience in 1918.

Over and above what may have been the implicit mode of thought and "motive" that characterized the formative years of the curriculum movement was the doctrine that was explicitly espoused. The *modus operandi* that became associated with major curriculum leaders like Bobbitt and Charters can easily be identified as activity analysis, but beyond the technical process lay a social doctrine sometimes vigorously proclaimed, sometimes only half expressed. That doctrine was social efficiency. The doctrine of social efficiency held up all school subjects, indeed all school activity, against the criterion of social utility. Surely, this was one of the major thrusts of the *Cardinal Principles of Secondary Education*. Although no recommendation was made there to abolish any school subject, each of the existing subjects was asked to make explicit its contribution to one or more of the seven aims. Of the seven aims, only "command of fundamental processes" could not be called a category of life activity in the sense that "worthy membership," "vocation," and "citizenship" could be. Indeed, "command of fundamental processes," more a set of skills than a category of life activity, seems out of place in the context of the other six and was probably an afterthought. (Apparently, earlier versions of this set of objectives listed only six, omitting "command of fundamental processes.")


From the point of view of curriculum, however, perhaps the key notion was that subjects would be judged by criteria external to the subjects themselves. History, for example, would no longer be directed toward knowing history or to some criterion inherent in the discipline itself, but toward some external, socially useful aim such as producing good citizens. It is easy to imagine which subjects were in the least favored position under such a doctrine. Not only Latin but also the modern foreign languages were hard pressed to demonstrate their social usefulness. Latin, however, became a kind of focal point in the struggle that developed for a place in the curriculum, and, in the end, the continuing sharp decline in Latin enrollments in the 1920's marked victory for the proponents of social efficiency over the classicists. Even courses in mathematics, among the most prestigious of school subjects, were hard pressed to hold their place, particularly in the case of algebra and geometry.

What subjects stood most to gain by the application of this doctrine? This is also easy to imagine, but the Sixth Yearbook of the Department of Superintendence, published ten years after the issuance of the *Cardinal Principles* report, provides some substantial evidence. In a survey of high school principals, undertaken to determine the extent to which that report influenced actual practice, 56.1 per cent of the 1228 principals replying reported that they had taken steps to implement the report. Interpreting this influence in terms of the adding and dropping of subjects, these principals reported adding in significant numbers courses in commercial studies, social studies, industrial arts, physical and biological sciences, and home economics. The subject to suffer most, of course, in terms of being dropped from the curriculum was Latin. It was followed by ancient history, French, botany (probably because it was being fused into biology), Spanish, and solid geometry.13

In addition to reporting the number of added and dropped courses, the Department of Superintendence also published a table showing the seven aims of the *Cardinal Principles* report along with a parallel listing of the subjects that presumably contributed to the achievement of those aims.14 An asterisk beside a subject indicated a direct con-

tribution: those subjects without an asterisk were regarded as making only an indirect contribution. With respect to the objective of health, for example, physical education and training, hygiene, and health were listed as making direct contributions, while the contributions of general science, biology, science, and physiology were regarded as indirect. Algebra, geometry, physics, and chemistry appear only opposite the objective of vocation, along with home economics, bookkeeping, manual training and mechanical drawing, and shorthand and stenography (among others). The only justification offered for any of these subjects in the school curriculum, then, was that they might some day contribute to earning a living. Physics for anyone who was not destined to be a physicist, or at least who did not need it to get into college, was simply inappropriate.

The *Cardinal Principles* report was actually only a moderate statement of the social efficiency doctrine; leading spokesmen for social efficiency both before and after its publication were much more rigid in applying their doctrine to the curriculum and to education generally. Many demanded openly that each of the school subjects, particularly the so-called academic subjects, demonstrate their right to exist. David Snedden, a major figure in the social efficiency movement and a man whose influence on the curriculum is still widely felt, regarded Kingsley’s report as “almost hopelessly academic.” Perhaps its moderation was in part responsible for its enormous popularity. Until perhaps a decade ago, even a whispered criticism of the report was regarded as rank heresy. Most speculation on the *Cardinal Principles* report centered on why we have been so dilatory in implementing its recommendations.

**CURRICULUM DICHOTOMIES AND CURRICULUM DIFFERENTIATION**

Apart from the criterion of social utility applied to school studies, the social efficiency movement incorporated two closely related dichotomies that were to have a profound effect on twentieth-century curriculum development. The first of these was a dichotomy of school subjects: the academic and the practical. Such dichotomies, in and of themselves, were not unusual. In its 1828 report the Yale faculty spoke of “the discipline and the furniture of the mind,” reflecting a distinction between disciplinary and informational subjects.16 Dis-
disciplinary or formal subjects developed the power to think while informational or content subjects furnished the mind with knowledge. This distinction was a popular one throughout most of the mental-discipline era. Toward the end of the nineteenth century, around the time of the Committee of Ten, the classic-modern dichotomy (a version of the older classical-English dualism) enjoyed a brief vogue, "classical" including Latin, Greek, and mathematics and "modern" represented by such upstarts as French and science. Eliot's doctrine of the equivalence of school subjects was, in part, an effort to bridge that dichotomy, at least insofar as college entrance requirements were concerned. A sharp distinction between the academic and the practical, however, was largely a product of the social efficiency era and one that helped establish a kind of anti-academic image for the curriculum field.

The academic-practical dichotomy of school subjects was closely tied to a dichotomy of school population: college preparatory and non-college preparatory. The origins of this dichotomy lay not so much in the obvious fact of individual differences, but in the interpretation given and the implications drawn from those differences. Contrary to popular impression, most of the high-school graduates before the turn of the century did not go on to college. Possibly, there was a major change in school population as universal education was extended at the end of the nineteenth and in the early part of the twentieth century, but there was an even greater and more far-reaching change in our notions of what to do with the diversity of the school population. The Committee of Ten in 1893 recognized diversity within the school population, but it declined to make a curricular distinction between education for college and education for "life," education for life being regarded as what colleges should accept. A few years later, intensive efforts were being made to differentiate the curriculum along precisely those lines.

It should be pointed out that the college preparatory—non-college preparatory dichotomy is not, strictly speaking, drawn along lines of ability but along lines of probable destination, although some overlap is undoubtedly assumed. This emphasis, however, on curriculum differentiation based on probable destination became so pervasive that even teachers in elementary schools were explicitly exhorted to perform a kind of screening and predictive function. As the emphasis on predicting probable destination increased, social class became an increasingly important predictive factor and basis for curriculum differentiation. You will recall that in stating his central theory Bobbitt

implied that social class would be one basis for ordering the abilities, attitudes, habits, appreciations, and so forth that would be discovered in the process of activity analysis and would be converted into curricular objectives. A typical curriculum study conducted in 1924 by a highly respected curriculum leader illustrates the failure to distinguish between social class and ability in efforts to differentiate the curriculum. In describing the problem to be studied the investigator writes,

There is abundant evidence to show that the predominating type of high-school program in the country at large is the academic curriculum, consisting of the traditional disciplinary subjects in which the pupils are held to a single standard of achievement. That programs of this type favor the pupils in the upper quartile of the social-economic scale to the increasing neglect of progressively lower levels is a fact more often asserted than proved. Its ready acceptance by the progressive renders the conservative more insistent in his demand for proof, and the fact is easily proved.18

Interestingly, the “progressive” point of view as described here is the one that holds that children from low socio-economic groups do not have the ability to profit from the so-called academic curriculum whereas children from the higher socio-economic groups do. The “conservative” position (presumably handicapped by misplaced optimism) does not attribute such a categorical lack of academic prowess to children from low socio-economic classes. In the actual study, conducted in Homestead, Pennsylvania, a questionnaire was used to determine the father's occupational status, which was classified into five occupational groups. Each of the groups represented a level of social class. When it was found that success in “academic” subjects was related to father's occupational status, the implication was drawn that father's occupation could be used to guide low socio-economic students into practical courses and to adapt the overall curriculum of the school to the social class being served. The son of a coal miner, then, as opposed to the son of a doctor, should be assigned to general mathematics rather than algebra, and a school serving coal miners should probably teach community civics rather than history. The modern parallel which irresistibly comes to mind is the tendency to attribute to any class of students, whether they be Negroes, the so-called disadvantaged, or simply the poor, a kind of congenital inability to cope with conventional studies. As Kenneth Clark aptly stated this assumption, “It is not really worth it to put time and effort into teaching Negroes because, after all ‘they’ will only become

frustrated. There is no point in ‘their’ having high academic aspirations since ‘their’ lives will be restricted to menial jobs.” This is, as Clark describes it, a “self-fulfilling prophecy” now, and it was in 1924.19

Going even beyond the blanket attribution of academic or non-academic ability to certain social classes lay a basic naiveté—perhaps it could better be described as a pessimism—about human intelligence and its ability to apprehend and use so-called academic knowledge. In a period when the field of measurement was coming into its own, it is perhaps understandable that our forbears affixed unusual curricular interpretations to the differences in ability that were being observed and measured. One of the foremost of these interpretations in the period of social efficiency was a kind of pessimism about the capacity of any but the able to learn and profit from the study of such subjects as mathematics, history, and foreign languages.

Since I am using the term pessimism in a rather specialized sense here, it might be appropriate for me to dwell a little on the sense in which I mean it, first by describing in some detail what an optimistic position concerning human intelligence might be. The most outstanding example that comes to mind of an optimist regarding the intelligence of man is Lester Frank Ward, the pioneer American sociologist. Addressing himself to this question in his *Applied Sociology*, Ward declared,

... it does not require any great or towering native abilities to enable an individual to maintain his place in the vanguard of society. The minimum natural abilities above the stage of pathological imbecility suffice for this. Herein lies the hope of the world, because it shows that the social heritage is no such burden as to require an Atlas to hold it up, but is readily adjusted to the feeblest shoulders and easily borne by all.20

In support of his position, Ward brings to bear the views of some eminent scholars: Condorcet:

... the truths whose discovery has cost the greatest effort, which were only understood at first by men capable of profound meditation, are soon after developed and proved by methods which are no longer above an ordinary intelligence.

and John Stuart Mill:

I am amazed at the limited conception which many educational reformers have formed to themselves of a human being's power of acquisition.

and Ernst Mach:

We are astounded often to note that it required the combined labors of many eminent thinkers for a full century to reach a truth which it takes us only a few hours to master, and which, once acquired, seems extremely easy to reach under the right sort of circumstances.21

Ward concluded with Helvetius that "all truth is within the reach of all men" and presented an interesting example of his contention relating directly to school practice. After he had expressed essentially the same views in his Dynamic Sociology, an English schoolmaster, Mr. Grant Allen, challenged Ward's position by citing the following example:

In a class of fifteen boys of fifteen years old, taken from the exceptionally intelligent English upper and middle classes, it may be safely asserted that only three on an average can ever be taught really to understand, we do not say the fifth, but the first, proposition of the first book of Euclid. Of the remaining twelve, some six might be taught it so far by rote that they could repeat it correctly even if the letters in the figure were transposed; three could probably learn it by heart, but without being able to repeat it with variations in the letters; and three more would be incapable of repeating it at all in any way. When this is the case even in congenitally intelligent classes (relatively speaking), what can we expect that education will do with the less developed intellects of the ignorant masses?22

Ward doggedly pursued this point until he received a letter in 1884 from a school principal and mathematics teacher in Washington, D.C., who said,

... were I to divide up a class of fifteen as he [Mr. Grant Allen] does, I should say that twelve could be taught 'really to understand' any ordinary proposition of Euclid, and that the remaining three could all be taught it so far as to be able to 'repeat it correctly even if the letters in the figure were transposed,' and that there would be none in the class 'incapable of repeating it at all in any way.'23

This response apparently satisfied Ward.

21 Ibid., p. 102.
22 Ibid., p. 104.
23 Ibid., p. 105.
I have digressed from the major point only to show that even when one recognizes the real differences in ability that characterize the human species, it is still possible to be optimistic about the ability of man in general to learn what it is important for him to know and to share in the intellectual estate. This is quite apart from the question of whether it is important to know any of Euclid's propositions. Ward’s general faith in man’s abilities was, I think, shared by Dewey, but not by the generation of educational leaders into which the field of curriculum was born.

The main thrust of the proposals that were made by the major curriculum leaders of the 1920’s and by their allies in the Department of Superintendence betrayed a basic mistrust of ordinary human intelligence, holding that, particularly in the case of the “masses,” only the most practical and down-to-earth studies were appropriate. This basic mistrust or pessimism about man’s intelligence is perhaps best illustrated in the work of Ross L. Finney, who, next to David Snedden of Teachers College, was probably the most articulate educational sociologist of the period. In his major work, A Sociological Philosophy of Education published in 1929, Finney, after expressing strong pessimism about the practical workings of democracy, points to the work of psychologists as supporting his contention. “And now,” he says, “come forward the psychologists with scientific data for headlining what we all knew before, namely, that half the people have brains of just average quality or less, of whom a very considerable percentage have very poor brains indeed.”24 What a contrast here with the faith of Lester Frank Ward writing less than twenty-five years before! Finney went on to support the notion of “education for followership,” arguing that “if leadership by the intelligent is ever to be achieved, followership by the dull and ignorant must somehow be assured.”25 He also cited James Harvey Robinson and John Dewey as being among those who had adopted the scientifically discredited view that people should be taught to think.

In curriculum thinking, then, the bifurcation of the school population was accomplished either in terms of probable destination (college preparatory versus non-college preparatory) or in terms of social class (doctors’ sons versus coal miners’ sons) or in terms of ability (high I.Q. versus low I.Q.). Most frequently, it was an amalgam of these three. In each case, I think, the curricular implications of the differences between the groups were grossly exaggerated, and the labeling of students

25 Ibid.
as belonging to one group or another was made a substitute for attending to the real educational needs of individual students. To this day, many school administrators feel that placing students in college preparatory or non-college preparatory tracks is an appropriate solution to an educational dilemma.

CONCLUSIONS

In concluding a review of this kind, it is customary to throw out a few recommendations or object lessons. Normally, I would resist that temptation; but if you will accept my suggestion that 1918 is the year when the curriculum field was born, then we shall shortly be celebrating our golden anniversary as a field, and that makes the temptation doubly hard to resist. In any case, I shall make these concluding remarks brief.

I think that the basic problem we face as a field as we move into our second half-century is one of self-identification. In some sense, we are facing a kind of crisis. This crisis is in part illustrated by the fact that a physicist is now gradually replacing a psychologist as the single most influential person in the curriculum field. One of the ways I think we can face this crisis is by critically examining our heritage as a field of study. As Arthur Foshay suggested at one of these curriculum conferences, one of the distinctive features of a discipline is that it has a history or tradition.26 We should examine our history, but not in order to provide a kind of ritualistic explanation of present conditions; rather, as C. Wright Mills has suggested, "we must often study history in order to get rid of it."27 And one of the things we might get rid of is our evangelistic enthusiasm for causes which, in effect, have had their day.

We have inherited from our past certain ways of thinking, criteria of excellence, dualisms and dichotomies, and dialectical patterns that seem so normal and natural that we rarely stop to examine them. If we are to grow and prosper as a field of study critical reexamination of this inheritance is crucial. We must, in other words, create a dialogue not only among ourselves, but with our professional forebears.

We have seen, for example, that defining the curriculum in terms of experiences or learning experiences had its origins in an early period in our history. Only in rare instances have we really examined what it means to make a learning experience, or for that matter a potential

learning experience, the unit element in the curriculum. Should we continue to define the field of curriculum so that, in effect, it includes teaching? Or does this tend to obfuscate an important etymological and conceptual distinction? Shall we continue to define our goals in terms of behaviors? Or does this only set up the conditions for a kind of brain-washing? Does the bifurcation of the school population along lines of probable destination provide for individual differences? Or does it tend to stratify social class lines and inhibit social mobility? Is the curriculum field essentially a movement, a crusade for a special cause? Or is it a field of study open to the analysis and evaluation of many competing curriculum positions? I would submit that close re-examination of central questions such as these would be a most fruitful way to celebrate our golden anniversary as a field of study.