

## PRINCIPLES TO BE APPLIED IN THE IMPROVEMENT OF SECONDARY SCHOOL CURRICULA

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It is evident to any competent person who examines our current high school curricula from the viewpoint of such formulations of the objectives of secondary education as those of Bobbitt, Inglis, Ferriss, Briggs, or the Committee on Cardinal Principles of Secondary Education that there must be some radical revisions if our secondary schools are to perform the democratic functions demanded by a complex, changing civilization such as ours. The following principles have been deduced from the generally accepted objectives of secondary education, and are offered as guides in the improvement of our programs of studies, curricula, and courses of studies.

### *I. Principles Relating to the Objectives of Secondary Education:*

1. The secondary school is, in a large measure, a supplementary educational agency, and should be so organized as to give all normal adolescents economical and effective training along the lines of the major educational objectives, provided this training is not being economically and effectively given by other agencies than the high school.
2. A maximum of self-realization and social efficiency should be the ultimate goal of all educational efforts, through whatever agencies given.
3. Educational objectives are the primary guides in the planning of courses of studies, curricula, and programs of studies designed to produce certain behavior results in pupils, and the activities aimed at must be analyzed in order to discover what proficiencies are demanded and whether or not the courses designed will attain these proficiencies.
4. Educational objectives, as well as the planned activities designed to achieve them, must be continuously subjected to critical examination, evaluation, and necessary revision.

### *II. Principles Relating to the Program of Studies:*

1. The school will select and organize its program of studies, or activities, in such manner as to meet the educational needs of all individuals who should attend it.
2. In constructing its program of studies, each high school must consider relative values, and must undertake first those courses which are most generally needed and that can be given with a reasonable degree of economy and effectiveness. If it is necessary to leave out certain courses, those which would be useful to the fewest students and those which can be least effectively and economically given should be omitted.
3. The interests, needs, abilities, and activities of both adolescent and adult society must be taken into account in formulating the program of studies, each curriculum, each course, and each specific activity. Begin with the students and the community where they are and carry them to the level of development desired.
4. The program of studies will be composed of curricula, each of which

will be designed to meet the peculiar needs of the major homogeneous groups having similar, differentiated, group needs and objectives.

### III. *Principles Relating to the Curricula:*

1. All curricula exist solely for the accomplishment of the educational objectives in the behavior of the pupils, and each curriculum must be of such nature as to insure adequate training toward all the major educational objectives.

2. Local differences among schools are of such nature and importance as to demand variations in curricula and courses; consequently, data from local situations and sources should be utilized in the educational activities of the school.

3. Ideally, each curriculum would be an individual curriculum, but for the sake of economy, pupils should be grouped according to common needs (constant courses), homogeneous-group needs (cores), and peculiar, individual needs (variables).

4. Each curriculum should be sufficiently flexible to permit of ready, economical readjustment to pupil needs due to changes in society, aims, and interests. The program of studies, curricula, and courses must be sensitive to the changing needs of individuals and society.

### IV. *Principles Relating to Constant Courses:*

1. While there are variations among communities, groups, and individuals, and while a maximum degree of individual adaptation is necessary, still certain needs, interests, and activities constitute universal educational objectives, and will be found as constants in all curricula.

2. The constant courses should be so planned as to be easily adjusted to the individual differences of pupils within a given course, and the standards of achievement demanded should be such that all reasonably industrious pupils can pass.

### V. *Principle Relating to Core Courses:*

1. The differentiating courses in each curriculum should be designed to meet the peculiar needs of the homogeneous group for whom the curriculum is planned. These courses constitute the "core" of the curriculum, and differentiate one curriculum from another.

### VI. *Principles Relating to Variable Courses:*

1. Over and above the constant and core courses of each curriculum, there will be a limited number of free elective courses, or variables, designed to permit of still further differentiation on the part of the individual pupil.

### VII. *Principles Relating to the Sequence of Courses:*

1. The constant and core courses must insure the desired coherence, continuity, and sequence of training.

2. The earlier years of any given curriculum should aim at extensity, diversity, exploration and common needs, while the later years should aim at greater intensity, concentration, group, and variable needs (core and variable needs).

3. In vocational curricula, the applied, practical phases should precede the theoretical and technical phases, and serve as a basis for the abstraction and generalization of theory.

4. In college preparatory curricula, those courses bearing most directly on ability to do sequential college courses to be pursued should be given in the later years of the high school curriculum.

5. What pupils most immediately need and what they are most immediately interested in should come first. Teach a thing at the time it is most likely to function in the out of school life of the pupils. Avoid "cold storage" education as much as possible.

#### VIII. *Principles Relating to the Evaluation of Results:*

1. Scientific educational measurement should be employed to determine the effectiveness of constant, core, and variable courses in achieving the objectives for which these courses are set up.

2. Each teacher should be critical of objectives, materials, methods, and results, and should be ever on the alert for ways and means of making the educational program more effective.

#### IX. *Principle Relating to Guidance:*

1. Adequate provision must be made for intelligent educational guidance of each pupil. The guidance program should utilize extra-school and extra-class activities as well as classroom activities in adjusting the curriculum to individual and group needs of pupils.

#### SUGGESTIONS FOR DETERMINING THE PROGRAM OF ACTIVITIES

1. Make an analysis on a large scale of the desirable activities of human beings generally, in each major-objective field (health, economic, civic, sociability, intellectual activities, recreational, aesthetic, religious, etc.).

2. List these activities separately.

3. Revise these in the light of the best and most enlightened practices.

4. Make an analysis, in each of the major fields, of the activities carried on by high school students and adults of the particular community for which the program of activities is being formulated.

5. Determine wherein this community falls short or performs inadequately the various types of activities demanded (this requires scientific measurement).

Set up goals which this community should reasonably be expected to reach in the near future with respect to each educational objective.

7. Determine what training is being economically and adequately given by agencies other than the high school toward the realization of these goals.

8. In the light of the findings under §6 and §7 above, set up the residual educational goals for the high school for a given period of time.

9. Formulate a program of activities, in so far as the resources of the community and the school will permit, which will enable each pupil in the high school (or who should be in the high school) to realize all the educational goals adequately. This will constitute the program of studies for the high school in question. It should be subject to frequent revision to meet changing needs and conditions. The curriculum is never finished.

The next step is to subdivide the program of studies into curricula designed to meet more specifically homogeneous group needs, such as home-making, agriculture, commercial, industrial, various types of college preparatory, etc.

The total program of activities having been determined for a given community, and these having been subdivided into the curricula necessary

to meet major homogeneous-group needs, the next step is to determine specifically and definitely what activities (ideas, habits, skills, ideals, attitudes, etc.) shall constitute the smaller units making up the various courses that can be fairly unified, organized, and standardized for the different types of objectives and levels of maturity. This is the point at which all curriculum problems focus. Just what stimuli must be provided to produce the desirable behavior changes and consequent behavior products, or patterns, in pupils? This is the point at which the educational psychologists, methodologists, the experts in the various fields of knowledge, artists, artisans, professional and vocational experts, measurement experts, supervisors and administrators, and efficient laymen in the various fields of human activities must all be enlisted in the task of constructing adequate and efficient courses of studies. Space will not permit more specific illustration of this sort of curriculum construction but curricula and courses are being constructed in this way already, and we may expect more of such work in the future.

*Suggested Constant Courses:* Bearing in mind the fact that all our present high school courses need to be reconstructed in order to make them functional in achieving the educational objectives; that much dead material needs to be removed and much new material introduced, the writer runs the risk of being misunderstood by suggesting the following constant courses and curricula:

1. Two units of English designed to give the pupil mastery of oral and written communication of the type needed by intelligent and efficient Americans.
2. One unit in literature, designed to acquaint the pupil with the sources and samples of the world's best literature, past and current, books and periodicals.
3. One unit in vocations and community civics to develop proper civic efficiency and to aid in the intelligent selection of a suitable and useful vocation.
4. One unit in general science for exploratory and general mental efficiency purposes; to insure an appreciation of the fields of modern science which is so potent a factor in our lives.
5. One unit of economics and sociology to aid pupils in the proper interpretation and utilization of social and economic principles and situations.
6. One unit of American history to insure understanding of the development, nature and functions of American institutions.
7. One unit of extra-class activities to contribute to health, recreational, sociability, and aesthetic education.

#### REQUIREMENTS FOR GRADUATION

In addition to the above eight unit courses, the writer would suggest the requirement of three major and two minor core courses, and at least three variable unit courses for graduation. The five core courses would insure intensity and continuity in training, while the three variables afford opportunity for meeting individual needs. In every curriculum the eight constant courses will be found. None of them may be counted as core or variable courses. Such core courses as three units of mathematics and two units of science; three units of one language and two of another; three units of agriculture or home making and two of a closely related science;

three units of typewriting and shorthand and two units of bookkeeping and commercial arithmetic or law; three units of manual training and two units of science or mathematics, etc. should be arranged. Some curricula will be specifically designed, in some communities, for students who do not intend to go to college, but want a practical type of education to qualify them for life immediately after high school graduation, or even before. The three or more variable courses required for graduation may be chosen from any of the courses offered in the school over and above the required constants and core courses of a given student.

*Suggested Curricula:*

|  | Grade IX  | Grade X                            | Grade XI   | Grade XII                              |
|--|---|------------------------------------|--|--|
| Constant Courses:                            | Eng. IX<br>Gen. Sci.<br>Civ-Voc.<br>Extra-Class | Eng. X<br>Extra-Class              | Liter. XI<br>Amer. Hist.<br>Extra-Class<br>A Science | Sociology-<br>Economics<br>Extra-Class |
| Agriculture:<br>Cores:                       | Agric. IX                                       | Agric. X                           |  | Agric. XI                              |
| Variables:                                   | None  | Any IX or X                        | Any X or XI<br>course                                | Any XI or XII<br>course                |
| Home Making<br>Cores:                        | H. M. IX  | H. M. X<br>Gen. Math.              | H. M. XI   | A Science                              |
| Variables:                                   | None  | Any IX or X                        | Any X or XI  | Any XI or XII                          |
| Natural Science<br>(College Prep.)<br>Cores: | Alg. IX   | Pl. Geom.<br>Biology               | Physics  | Chemistry                              |
| Variables:                                   | None  | Any IX or X                        | Any X or XI  | Any XI or XII                          |
| Social Science<br>(College Prep.)<br>Cores:  | Alg. IX   | Anc. Hist.<br>Pl. Geom.            | M-M Hist.  | Eng. Hist.                             |
| Variables:                                   | None  | Any IX or X                        | Any X or XI  | Any XI or XII                          |
| Foreign Lang.<br>(College Prep.)<br>Cores:   | Alg. IX   | Pl. Geom.<br>F. L. X<br>(1st year) | F. L. XI<br>F. L. X<br>(1st year)                    | F. L. XII<br>F. L. XI                  |
| Variables:                                   | None  | Any IX or X                        | Any X or XI  | Any XI or XII                          |

The above curricula are examples of the application of the principles set forth in this paper. The number, type, and scope of curricula will depend upon the number of core and variable courses that a given school should offer. All schools and all curricula will include the eight constant units. Such courses as psychology, music, world history, general mathematics, industrial and commercial geography, and any of the core courses not in a given pupil's curriculum may be used as variables, or free electives. By a system of alternations any school may increase the number of courses offered from 40% to 60% without additional cost or impairment of efficiency, provided care is taken in the selection of teachers and equipment.