In a discussion of new directions in curriculum study, alternatives to present patterns have been grouped under: (1) state and national studies, (2) articulation, (3) innovation in curriculum, (4) basic studies, (5) black studies, and (6) vocational education. A summary of major trends in curriculum development uses seven categories: (1) growth of a third major division in the junior college curriculum; (2) greater influence from social-political upheavals; (3) expansion of vocational-technical curriculums; (4) continued innovation; (5) use of instructional objectives in curriculum development; (6) articulation; and (7) evaluation. Statewide and nationwide surveys were concerned with identifying post-secondary needs, classification of courses by transfer, occupational, and comprehensive, and the role of music in the junior college. Articulation planners were recommended to solve the problems of advanced placement, transfer, state planning, and junior college research. Curriculum innovation centered on developing new uses of products commonly associated with educational media. Research into basic studies programs indicated that, now that they had progressed beyond the "Subject A" course concept, students tended to achieve greater success. Other work showed that, in addition to basic studies, ethnic studies and ethnic problems are becoming a permanent part of the junior college curriculum. At the same time, vocational education has become more work-study oriented. (AL)
NEW DIRECTIONS IN CURRICULUM STUDY

Since curriculum development is a special concern of the ERIC Clearinghouse for Junior Colleges, previous issues of the Junior College Research Review (JCRR) have touched on different aspects of it. An expanded issue of the JCRR (February 1970) dealt with the lack of a rationale for junior college curriculum development. In more recent issues (May, June, and September 1971), other views were expressed on possible alternatives to present curriculum patterns. This issue directs attention to various research reports on curriculum studies, articulation, innovations, etc., followed by a note on current trends.

State and National Studies

State and national surveys undertaken during the past year have sought to identify post-secondary needs and have attempted to project curriculum trends in the junior college. A statewide study was conducted by the Oklahoma State Regents for Higher Education to determine the current and future junior college needs of Oklahoma (ED 038 971). Data were collected on population trends, manpower distribution and needs, student enrollment, economic patterns, existing and required educational services, and financing. Articulation between two-year and four-year colleges was also an important part of the study. The recommendations included a reduction of program offerings and increased coordination among institutions of higher learning.

A survey by Smith (ED 038 972) of 758 junior colleges considered the nature and frequency of curricular offerings at these colleges. Courses were classified as transfer, occupational, and comprehensive. Comparing the figures with a similar study made in 1962 of 639 junior colleges, he found that although occupational courses had increased, transfer courses were still clearly emphasized.

A committee of the Music Educators Conference conducted a survey (ED 042 437) to review the role of music in the junior college. Data collected included the organization of the music department, faculty, teaching load, curriculum, and community relationships in 586 institutions. The report suggested guidelines for development of junior college music programs, including staff qualifications, program administration, and program and transfer requirements.

Articulation

Articulation between junior and senior colleges mainly concerns transferability of courses, but other aspects of intercollegiate relations also have a direct bearing on curriculum development. The University of Florida and the Florida State University were consulted by the Illinois Junior College Board and made recommendations for articulation planners in that state. The results of the study were reported by Barnes (ED 045 063). As a first step, they recommended uniform general education requirements among all institutions to facilitate transfer. Other recommendations touched on admission policies, subject-matter articulation, and transfer policies and procedures.

Innovation in Curriculum

Innovation is a byword in all segments of modern education, and no less so in curriculum development. Many innovative practices are followed in classroom instruction, but the effects on the curriculum in general are sometimes more far-reaching than on teaching. A good example is a study by Hunter (ED 040 696). This project concerned developing, demonstrating, and evaluating a systems approach for general college chemistry, general psychology, and developmental English at Meramec Community College. A course outline, instructional rationale, and materials for workbooks were a part of the project.

Since audio-visual equipment is essential to much curriculum innovation, a general survey of educational media in Illinois (ED 042 439) was conducted by Butler and Starkey. They found that opaque projectors, silent filmstrip projectors, phonographs, audiotape recorders, and 16mm. projectors were the five items most used in the past, and that A-V materials such as charts and maps, phonographs, 16mm. projectors, overhead projectors, and silent filmstrip projectors are most used at present.

Audio-visual materials are vital to the development of auto-tutorial instruction, as noted in a study at Diablo Valley College (ED 042 452). The study surveyed 91 California colleges and 25 in other states to determine how widely these methods were being used. Seventy of the California colleges indicated they are or will be using them. It was further noted that instructors are provided with greater opportunity to manage their educational environment by curricular restructuring.

The direct results of multi-media instruction on the curriculum were studied by Banister (ED 044 093). He presents a rationale for the design and maintenance of a multi-media program.
and financial support. What may be the ultimate in instructional media, the computer, is treated in a report by Brightman (ED 045 078). He discusses principles, curriculum development, and specific courses for the computer curriculum. Issues and problems identified include staffing, articulation between high schools and junior colleges, evaluation, and course objectives.

Another form of curriculum and instruction innovation - self-directed learning served as the basis for an experiment conducted by Hunter at Meramec Community College (ED 045 078). From a questionnaire distributed among students and instructors, it was concluded that traditional concepts of courses and instruction should be questioned further and that the self-directed learning program should be expanded.

Researchers and junior college staff members interested in further studies on innovation in the curriculum are directed to a comprehensive bibliography compiled by Davis for the years 1966 to 1969 (ED 044 107). It includes 165 articles, books, and reports, arranged in four sections: General Curriculum, Academic, Vocational, and Miscellaneous (which covers articulation, community services, disadvantaged, remedial, inner city, international and foreign).

Basic Studies

Important to the junior college curriculum has been the growth of Basic Studies or General Studies. These remedial courses go a step beyond the "Subject A" courses. The development of such a program in business education at Kapiolani Community College is reported by Taniguchi (ED 042 447). The study focuses on English, mathematics, accounting, shorthand, and typing, and notes an increased concern with individual development, a trend toward thematic rather than single subject-matter orientation, and more independent studies.

Mathematics, a basic subject in any remedial curriculum, is the subject of a survey made by Beal (ED 043 335). Responses from 98 junior colleges show that the reason for remedial mathematics is to enable students to continue in regular college math courses. This is contrary to the study made in Hawaii, noted above. Remediation is still considered in the traditional manner in most junior colleges - namely, boning up for a prerequisite hurdle. It was also noted in Beal's study that only 26 colleges made any effort to evaluate their remedial mathematics program.

A more encouraging report on basic studies was made by Johnson (ED 044 104). He describes the progress of the Basic Studies Program at Tarrant County Junior College. The Tarrant program is a one-year curriculum designed for students who rank in the lowest quarter of their class. Communications, humanities, social science, natural science, career planning, and reading are the six study areas taught in an interdisciplinary context by a team of six instructors, each responsible for 100 students. It was found that students in basic studies persist in college at higher rates than those who have similar academic characteristics but who are in other programs. The success enjoyed here forms a basic rationale for the creation of a special curriculum division in the junior colleges.

Similar success with a basic studies curriculum is reported by Heinl (ED 039 891). He examined the San Diego City College General Studies Program and described the rationale, methods of selection, testing, and evaluation of the program. He found that the San Diego students, like those in the Tarrant study, persisted in college and that minority students in the program achieved greater success.

The general, or basic studies, program often reflects the ideas commonly associated with the "core" curriculum. The core curriculum and curriculum development in general were topics at the Northern Illinois University Community College Conference, 1966-1970 (ED 042 445). Another important part of the conference was the discussion on the incorporation of general education requirements into the core curriculum.

Closely associated with the basic studies curriculum is the "compensatory" curriculum, now heavily supported by the federal government. Compensatory education is part of the government's effort to expand educational opportunities for underprivileged students. Florida has been a leader in this field and its efforts are reported in two major studies. The Florida Community Junior College Inter-Institutional Research Council reported a study of two Florida junior college compensatory programs (ED 041 551). It includes descriptions of tests, ways to evaluate achievement, and the identification of students' psychological problems.

The second report, by Schafer and others, is a more complete study of compensatory education (ED 046 370). The 24 junior colleges included were studied according to the planning objectives, implementation, and evaluation of existing programs. The data revealed that 11.6 percent of the students in Florida's junior colleges were disadvantaged and that a thorough evaluation of the programs is needed.

Black Studies

In addition to basic studies, ethnic studies and ethnic problems are becoming a permanent part of the junior college curriculum. Black or African-American studies can be considered either as separate subject matter or as part of a basic studies program. Chicago City Colleges' treatment of urban problems in black areas is reported by Beal (ED 039 870). Major features of the program are outlined and its operation and evaluation considered. A follow-up study of the 67 students' attitude toward the program was made and their performance was compared with students on other campuses in Chicago.

A more extensive effort to deal with the black community through the junior college is reported by the Southern Regional Education Board in Georgia (ED 046 380). Several "action programs illustrate innovative procedures that show promise of increasing the enrollment of black students and providing programs of such value as to keep them in school. Important considerations were found to be recruitment, special services, a special curriculum, and new instructional methods.

The most comprehensive examination of black studies has been made by Lombardi (ED 046 848). He states that black studies in the curriculum may be the most far-reaching reform in the history of the junior college because it has forced a re-examination of its fundamental philosophy. He bases this view on a national survey, undertaken in 1970, that revealed that virtually every type of junior college offers black studies and that some 242 institutions offered at least one course in black studies. Lombardi discusses political considerations, ethnic studies in general, differences in types of black studies, and the social-economic factors affecting them.

Vocational Education

Vocational, occupational, and technical education have recently received a good deal of attention from researchers. Especially notable are the reports on cooperative work-experience programs. Boyer reviewed various aspects of this kind of curriculum in the October 1970 Junior College Literature Review (ED 042 435). Where he looked at the value of work-experience education and the promotional responsibilities of the college, and surveyed a wide range of cooperative education programs. Cooperation between industry and junior college was reported on by the American Hospital Association (ED 045 086). The survey included 5,372 hospitals in the United States and Puerto Rico. Information was sought on the types of health occupations students are preparing for, the types of curricula in hospitals of different sizes, the number of curricula in each hospital, and the geographic distribution of hospitals.

Cooperative education was the subject of a dissertation by Basseri (ED 044 387). He proposed that mid-management training be undertaken by the junior college and offered a curriculum plan. Critical needs in cooperative education and job requirements for management positions were identified.

Many new occupational programs have been added to the curriculum, supporting the study made by Smith noted above, and many have been proposed and/or evaluated in research
reports. One such program was reported by Fox (ED 045 085). He calls for more effective programs for semiprofessional personnel in the field of corrections. His report discusses the competencies needed, the jobs and the necessary training, and a variety of degree programs.

Another special occupational program is reviewed by Favreau (ED 046 387). The author covers the many problems and needs in fire service education and details the special skills that should be included in the curriculum. The study revealed that the number of junior colleges offering this program has increased 50 percent in the past five years. The suggested programs are designed to lead to a Fire Science Associate Degree and Fire Science Certificate.

The newly prominent public service occupations, such as health and fire, are becoming more sophisticated and will soon reach the point of being sciences. Law enforcement is another of these areas. Pace (ED 046 067) offers the junior colleges and law enforcement agencies alternative ways to merge resources to improve police training and education. The report includes suggested curriculum; division of responsibilities between colleges, police academies, and advisory committees; and five examples of successful programs.

Vocational curricula are constantly undergoing evaluation of both their learning and financial accountability. Henderson offers suggestions for program planning and evaluation through the use of surveys (ED 045 067). He maintains that surveys will provide valuable information on student characteristics, manpower needs and projections, accountability, and financing, and suggests types of surveys, persons to be surveyed, and how to obtain feedback.

Trends in Curriculum Development

1. Growth of a third major division in the junior college curriculum. Basic/General Studies is fast becoming a third part of the general curriculum in many junior colleges. Unlike the traditional remedial programs, it is a comprehensive coverage of subject matter. English, mathematics, and other subjects are being combined into a coordinated curriculum, similar to the core curriculum and closely associated with compensatory education. The latter, heavily financed by the federal government, attempts to deal with urban and other educational problems resulting from social and economic imbalance.

2. Greater influence from social-political upheavals. The junior college acknowledges some of the social and political issues of modern society in its establishment of ethnic studies. Of special note is the addition of Black Studies courses to the curriculum.

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3. Expansion of vocational-technical curriculum. The number of occupational programs is increasing, especially those funded by the federal government. In addition to the reports submitted by the junior colleges, many generated by the ERIC Clearinghouse for Vocational-Technical Education provide information on a number of occupations. Although the number of vocational-technical programs has increased, the heaviest emphasis in the junior colleges is still on the transfer curriculum. The conflict between traditional academic prestige and the need for a practical "less-than-collegiate" curriculum continues.

4. Continued innovation. Two major areas of curricular and instructional innovation receive attention—audio-visual materials and auto-tutorial methods. Computers and self-instructional materials are becoming more widely used. There is also a trend toward moving innovative practices directly into curriculum development, rather than confining them to classroom instruction.

5. Use of instructional objectives in curriculum development. Concurrent with the application of innovations to curriculum development is the use of instructional objectives as the basis for curriculum. There is some concern with the administrator’s role in curriculum development, both negative and positive, and with the orientation of deans of instruction to the use of instructional objectives. The use of objectives may also result from the demand for accountability, although "accountability" is usually used only in its narrow financial sense.

6. Articulation. Transferability of courses and a smooth transition from junior college to the university are still problems—just as they are between high school and junior college. State governments are becoming more involved in statewide educational planning, possibly indicating the failure of the junior colleges to take the initiative in articulation.

7. Evaluation. Of several broad areas in curriculum development that deserve further study, the first is research on evaluation. With the rapid expansion of the junior college curriculum, a closer examination could be made of the existing curriculum, in terms of achievement and purpose, and of individual courses and programs.

Closely related to evaluation is the problem of establishing a rationale for curriculum development. Some efforts toward the development of a rationale are noticeable in the development of instructional objectives. They are being used for individual courses, but few have been developed for the curriculum in general.

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The Clearinghouse operates under contract with the U.S. Department of Health, Education and Welfare, Office of Education.