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ABSTRACT

This topical paper on reading center facilities is part of a series on reading programs in junior colleges. A center is described as a facility used by students, individually or in groups, to develop academic skills and learning through the important element of self-teaching. It is recommended that a center include grouping of learning materials, catalogs, location and direction signs, staff, and students. A satisfactory physical environment or atmosphere is stressed. It is felt that an overall learning center should be the core of a campus. The range in equipment, size, location, and use of space for a center is discussed. Information was gathered from visits to centers at various colleges, surveys, and a study of journal and research articles. (CA)



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COMMUNITY COLLEGE READING CENTER FACILITIES

Loretta M. Newman

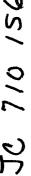
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TOPICAL PAPERS

- 1. A Developmental Research Plan for Junior College Remedial Education. July 1968. Out of print. ED 022 479.
- A Developmental Research Plan for Junior College Remedial Education; Number 2: Attitude Assessment. November 1968. Out of print. ED 026, 050.
- Student Activism and the Junior College Administrator: Judicial Guidelines. December 1968.
- 4. Students as Teachers. January 1969.
- 5. Is Anyone Learning to Write? February 1969.
- 6. Is It Really a Better Technique? March 1969. Out of print. ED 030 410.
- A Developmental Research Plan for Junior College Remedial Education;
 Number 3: Concept Formation. August 1969. Out of print. ED 032 072.
- 8. The Junior College in International Perspective. January 1970.
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- 13. Case Studies in Multi-Media Instruction. October 1970.
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FOREWORD

This paper is another in the series on reading programs in the junior college. Previous ones were by Kerstiens (<u>Directions for Research and Innovation in Junior College Reading Programs</u>) and Dintelman (<u>Skill Development in Junior College Reading Programs</u>). One by Kazmierski ("Training Faculty for Junior College Reading Programs") and another by Darnes et al. ("Exemplary Practices in Junior College Reading Instruction") are soon to be published. All should be of considerable interest to the reading specialist.

James L. Laffey, Director of the ERIC Clearinghouse on Reading, has the sincere thanks of the Junior College Clearinghouse for selecting the experts to write these papers and for assembling the initial articles. Without his knowledge and help, the series would not have been possible.

Arthur M. Cohen, Director ERIC Clearinghouse for Junior Colleges



COMMUNITY COLLEGE READING CENTER FACILITIES

Today's world of learning is typified by rapid change, so rapid that some visionaries are predicting the demise of the book except as an artifact in museums. According to most thinkers, however, we need not fear this for at least another thirty years. (A few problems still stand in the way, such as further refinement of computerization, microfilming, remote retrieval systems, instant TV retrieval, etc.--all at lower cost.) Until that day, we need to develop a Reading and Learning Center facility on the community college campus if we are to achieve any measure of success in college education for the hordes of students now persuaded that they want or need college training.

The "Center" Concept

In this report, the facility used by students to develop academic skills and learning will be called the "center." On various campuses it is referred to as a Reading Center, a Reading and Study Skills Center, a Study Skills Center, an Instructional Center, a Learning Center, an Instructional Media Center, a Resource Materials Center, or some other descriptive term. Regardless of its name, its purpose and clientele are the same.

Introduction

After World War II, the American public changed its view of education from permissive social adjustment to greater intellectual achievement. Students today come to the junior college with many attitudinal hurdles to overcome before they can begin meaningful learning.

The usual college student is likely to have a passive attitude. He has little time, skill, or desire for independent learning. Classroom subjects merely provide him with unrelated fragments of learning, for he has not learned how to associate bits of knowledge or how to interrelate subject fields. He has little time for the "laboratory" part of learning and does not understand the need for it. He receives too much teaching with too little learning, too much lecturing with too little studying, too much reading with too little analytical evaluating, and too much peer opinion with too little thinking.

The idea of handling students as groups seems wasteful for students and teachers alike. More responsibility must be placed on the student for the way he studies and for his rate of progress. For this self-development, he needs a facility different from the traditional classroom.



As the paths to knowledge increase, the campus will need larger teams of specialists trained to make optimum use of all resources for learning. For instance, an audio-visual expert is needed to handle the hardware problems that accompany the extensive use of such aids. A full-time reading assistant is needed to relieve the expert of many time-consuming tasks. As the reading expert cannot do all things, an adequate staff is as important here as in the library.

Centers should be developed in such a way that they can become an energetic force in upgrading the educational program of the campus.

Elements

Self-teaching, the basis of the modern center, was also the basis of the early European universities. Professors gave lectures with no required attendance; students worked with tutors whenever they needed help; the rest of the time they studied independently. Their education depended on their own initiative. The new element is the rapidly developing hardware and software to help students teach themselves. The transistor tube and Skinner's learning experiments have revolutionized learning techniques and point to new facilities for learning. Although television, films, filmstrips, slides, phonograph records, tapes, multi-level software, and language laboratories have been in use for some time, new types are constantly being developed.

Educational techniques are evolving at a rapid rate. Former Dean Bundy of Harvard says:

... information can be so ordered and presented that a learner actually engages in the rapid step-by-step control of the material; this has always happened when a deeply interested learner met a particularly well-written text. The new technique simply multiplies the effectiveness of the process. It is a technique, not a monster ... and the student is not taught by the machine--he learns with it. Indeed, it is precisely the inescapable need for--and the reward of--his active participation in the operation that differentiates this kind of study from reading a book (14:28).

It is, in fact, another form of study reading. As such, it belongs in the center, under the supervision and guidance of learning experts.

Regular, generalized, basic college courses cannot be easily separated into elements providing for the disparate needs of their many students-for instance, physics for the future teacher, biologist, physicist, or chemist--but such



supplementary, differentiated elements can be presented via self-instructional, supplementary, programed units. A good teaching center should have many kinds of mini-courses the better to meet the special needs of the student. Libraries try to do this with supplementary books, but programs do it more thoroughly, whether by machine, multi-level material, or programed texts.

B. F. Skinner puts it this way:

(Teachers) rarely deal with the actual processes of teaching or learning. They make no attempt to analyze what is happening when a student listens to a lecture, reads a book, writes a paper, or solves a problem. They do not tell us how to make these activities more productive. In short, the methods of education are generally neglected (14:31).

Skinner's experimental work in learning theory led directly to the teaching machine. Teaching machines vary from simple to complex, small to large, cheap to expensive. Their purposes vary from rote learning to exercises in reasoning and critical thinking. Most are well suited for carrel use.

The chief problem in the use of self-teaching machines is the preparation of the mass student body. Our best students thrive on independent study. The challenge is how to "turn on" the rest. The best way is probably an introductory or concurrent center course in which simple self-teaching devices are used and students learn to study and read independently.

Highly sophisticated centers in large colleges now transmit information electronically from a central storage bank housed in an audio-visual area, allowing the student or teacher to retrieve information without handling the hardware.

Atmosphere

Since the physical environment has much to do with the achievement of the student, the center should be comfortable, friendly, and well lighted.

Even though the deviation from an ideal atmosphere is slight, if the tasks at hand or the pursuit of the interests and activities desired do not permit an adjustment of activity or posture consonant with the subtle change of postural tone which is thermally determined, the individual experiences distraction and a subjective sense of effort which is unpleasant and fatiguing (14:94).



If one of our purposes is to encourage in the student sustained effort without a reduction of efficiency or productivity, the advice of the architect and of the heating and lighting engineer should be followed. Attitudes change and problems of conduct and misbehavior tend to disappear when the physical setting is satisfactory. At least part of the center should have a living-room atmosphere, achievable through the use of good light, interesting color, and good furniture carefully arranged. Positive interaction between students and staff, one of the most powerful stimulants to learning, is easier to achieve in such a setting.

Convenient materials and programs that place responsibility on the student promote good working habits and contribute to the serious learning atmosphere.

Survey and Visits

Material for this report was secured in several ways. Journals, research papers, architectural material, and talks with nearby colleagues yielded meager results. A query was sent to key people across the country to search out well-known facilities, and a small survey, concurrently conducted, brought a fifty-per-cent return. Finally, survey forms were distributed at the Western College Reading Association Spring Conference, colleagues from fourteen western states were interviewed, and several facilities were visited.

Altogether, information about or from some 120 sources, including 70 colleges, was gathered, much of it duplication. No clear picture emerged from the fragmentary survey results. Three visitation reports were used: Eugene Kerstiens, El Ca.nino College, Torrance, California, thirty-three colleges; Elizabeth Johnson, Diablo Valley College, California, wenty colleges; Loretta M. Newman, Los Angeles Harbor College, twenty-four colleges. In addition, the League for Innovation in the Community College provided information from thirteen colleges.

Sixteen colages reported that provision for their center had been included in the original building plans; twelve in later new buildings; ten in remodeled classrooms; and seven in regular classrooms only. A movement in the right direction can be seen, with more centers being planned ahead of time.

General equipment has a close range from "some" to "extensive" in both software and hardware, most colleges having some of each. (Those schools having at least some equipment were possibly the only ones interested enough to return the survey.)

Under specific equipment, most indicated owning a considerable number of pacers. The figures are somewhat misleading, however, as the top figures come from one or two centers. Tachistoscopic equipment is plentiful and varied. No mention is made of how extensively any equipment is used.



Only eight colleges indicated having any teaching machines. Either they are not as popular as their advertisers would have one believe, or the advantages of their use are not known to the general faculty. Programed texts are used to about the same degree as the teaching machines. Twenty-one paperback libraries were reported; they seem to be a popular and useful learning tool.

Reading carrels were reported by most schools, ranging from zero to more than twenty-five.

THE CENTER

The center is a facility for developing, practicing, applying, and eventually enjoying reading and learning. It is a facility for individual, small-group, and large-group learning, for discussions, teacher conferences, tests, tutoring, and counseling.

It should include: (1) groupings of learning materials-books, programed texts, paperback libraries, magazines, newspapers, multi-level learning kits, content-area materials, films, filmstrips, slides, teaching machines, etc.; (2) catalogs (in large centers); (3) location and direction signs; (4) staff-director, reading instructors, content-area instructors, tutors, office workers, volunteers; and (5) students.

The center can be formal, informal, or a combination. Most centers tend to try for an informal, relaxed atmosphere, while others are forced to resort to sharing one or more regular classrooms, limiting activities either to alternate class and lab use or, in some cases, combining the two.

Larger centers generally include the reading and study skills center in a learning center or multi-media complex that houses the library, audio-visual head-quarters, rooms for programed texts, and usually a small room for reading and skills development (Portland Community College). Some descriptions, however, do not mention any reading or study skills development center (Bakersfield College, California) (26:2). A notable exception is Columbia College (Columbia, California), which has a multi-media learning center specializing in reading improvement (26:3). The multiplicity of ways the reading staff uses space in most of the facilities visited leaves no doubt about their ability to innovate. Effective use of space is a serious problem in most centers. Needs for the center are similar to but more varied than librarians' needs and include specialized rooms for small groups, at least Evo classrooms (for at most twenty-five students each), and access to one classroom large enough for a reading activity demonstration or for testing. The two small classrooms are connected by a sliding, sound-proofed wall so that they can become one.

The sample survey indicates a nearly equal three-way division in the use of regular classrooms, new classrooms, and remodeled classrooms for reading. New



facilit s that include reading activities as a part of a larger library-controlled learning resource center usually also have one small room for reading instruction. The survey shows a four-way split in the number of rooms: seven have one room, five have two rooms, seven have three rooms, and seven have more than three. Six report a special or separate building, and nine are wired into a central multimedia facility. The reading classrooms vary from 625 to 1,000 square feet; entire facilities range from 625 to over 2,500 square feet.

Librarians recommend library seating space for thirty per cent of enrollment (14:50), but estimate provision for less than five per cent in the usual library setting. Colleges idealistically think in terms of two to three hours preparation for each hour spent in class and recognize the need to provide more time for independent study. The center, therefore, should also think along these lines. There is still and probably always will be need for reading classrooms in which groups of from ten to twenty-five students can meet on a regular schedule.

On most urban campuses standardized reading tests with national norms indicate that at least fifty per cent of a college's student body could benefit from a reading class on a corrective or remedial basis. Another forty to forty-five per cent could be considerably helped by exposure to planned study skills, advanced reading techniques, analytical and critical reading, and many mini-courses in specific educational skills. At present most campus centers serve from one to ten per cent of the student body. Makeshift facilities will be used for a long time to come. At one college, the author was told that, while thirty-six sections of remedial reading would be needed in the fall, only fourteen sections could be planned.

The number of reading classrooms, conference rooms, and carrels and the amount of floor space should be so planned that supplementary space may be used later. If the center starts out as a separate building, additional classrooms can be planned to provide easy access to the original center. Movable walls, careful planning of major structural supports, sufficient foundation for a second-story addition, portable soundproof walls, and partial partitions help keep space flexible.

Several centers have small multi-use rooms. Some are designed and built for special purposes, such as talking, taping, phonics, and vocabulary-sound matching; listening for six to nine people; group counseling and tutoring for up to six people; balance boards and functional vision training; small-group film or filmstrip viewing; typewriting (for tactual reinforcement); and casette taping (for remedial composition and for summarizing practice in reading comprehension training). Whatever the use, small-group rooms are valuable. One lab (San Bernardino



Valley College) created cubicles (open small rooms) by shifting bookcases to create separate areas for various reading and study skills.

Only two colleges said they have no carrels at all, nine have from six to ten, seven have eleven to twenty-four, three have twenty-five or more. Many have simple wooden carrels designed for nothing more than reading a book with or without a non-electric pacer. Others use commercially made carrels with elaborate auxiliary equipment. All provide highly desirable privacy, for studies indicate that visual distractions are more disturbing than sound distractions.

Workroom size varies with the size and complexity of the center. Colleges using little hardware need no repair or storage space; others need it in proportion to the amount and kind of hardware used.

Instructors' offices can be either scattered throughout the center or grouped together as a core. Portland Community College has decentralized its library and most of its faculty offices so that faculty are in study centers throughout the campus. Students waiting to see instructors can study, and those studying in a particular field are never far from expert assistance in their subject. The resultant informality between students and faculty has many positive effects.

Discussion

Librarians recommend twenty-five square feet of floor space per reader. A reading classroom will have considerable reader disturbance if students must move about in narrow aisles or if regular classrooms are remodeled into makeshift reading labs. Proportions vary according to individual campus needs, administrative support for the concepts of individualized instruction and motivation, and public backing.

In our sample survey, only two colleges report more than 2,500 square feet. It seems, then, that some difficulties in successfully motivating students toward self-development are an outgrowth of failure to provide an environment that encourages it. To continue moving in the direction of individualized, self-promoted student study behavior, the problem of space planning must be faced.

The most advanced planning was observed at Portland Community College. The entire library system is decentralized and diffused into each major building with related activities adjacent to multiple reading areas, staggered book stacks among lounge and table areas, study carrels along most of the walls, and faculty offices centered as a core for each building area. Only one small specialized reading room, however, is found in this cluster of study areas. Even with such superb general library planning, the need for adequate space to develop the fundamental learning skills on which efficient use of the library rests was overlooked.



The best use of space was observed at the San Bernardino Valley College. The original college library building has been turned into a reading center, the only one visited that was large enough and comprehensive enough to provide unlimited learning activities in an atmosphere suited for learning. Skillful manipulation of book racks, classroom size, carrels, and all equipment reinforces the objective sought by the activity. There is even office space for two instructors, a full-time secretary, and at least four student assistants.

Everything except the multi-media area is on a help-yourself basis, though an assistant is present if needed. There is evidence of magnificent leadership in the building of this reading center and its integration with the supplementary needs of many courses on the campus. Much cooperation between administration, reading specialists, and college faculty is required if the learning needs of the students are to be realized.

For a reader to be comfortable, he needs a minimum of two by three feet of tabletop space. Oblong tables discourage conversation (14:72), and their height should vary from twenty-eight inches to thirty inches, to diminish any students' self-consciousness about his or her height. Carrels facing the wall help relax self-conscious women. Some like to cross their knees as they read; table skirts permit this practice. Although formica tops limit defacing and make a good writing surface, they do create some glare. Aisle space should be wide enough for safety in an emergency.

Chairs and tables need to vary in size and kind and must be comfortable. A few lamps on small tables near casual two- or three-shelf bookcases create an informal, homelike feeling with a good reading atmosphere. Hassocks for feet increase reading comfort, and carpeting is taken for granted.

The center is not meant to be primarily a study hall. It is a place where students can go to teach themselves how to learn in many situations and fields. As comfortable physical surroundings and furniture improve attitudes toward learning and studying, they are a reasonable investment that will pay excellent dividends.

The center services the whole campus. As such, it should be close to other academic service units. Since it is primarily for students, it should be easily accessible to them and close to the student union building.

The overall learning center should be the core of the campus. It should include the library, the audio-visual center, the multi-media center, the graphic areas, and the reading and study skills center. They are all interrelated and depend on one another for servicing the multiple learning needs of students in college today. The center can contribute to each and every course by developing appropriate reading, learning, and study skills. Therefore, it should be near faculty offices or have content-area faculty always on duty.



Colleges are being challenged to change not orily by students and community but also by industry, which now is beginning to enter the field of guaranteed learning by contract (Texarkana and San Diego). It is time community colleges assume leadership in developing centers that produce measurable results coupled with human values. If we fail to accept the current challenges in education, then we may find our teacher-connected education engulfed either by industry or destroyed by acts of violence by extremists.

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BIBLIOGRAPHY

- American Institute of Architects, Illuminating Engineering Society, National Council on Schoolhouse Construction. <u>American Standard Guide to School</u> <u>Lighting</u>. New York: Illuminating Engineering Society, 1962.
- 2. "Behavior Changes and Vocabulary and Comprehension." <u>Journal of Educational Research</u>, 51:313-17. Dec 1957.
- 3. Boykin, L. L. "A Summary of Reading Investigation Among Negro College Students, 1940-54," Journal of Educational Research, 51:471-75. Feb 1963.
- 4. Branscomb, B. H. <u>Teaching with Books</u>. Chicago: Association of American Colleges and the American Library Association, 1940.
- 5. Brown, J. W., Lewis, R. B., and Harcleroad, P. F., <u>A-V Instruction:</u> Materials and Methods. New York: McGraw-Hill, 1959.
- Burbank, N. B. "Challenge to School Administration," (address to Delaware School Administrators), Laurel, Del., May 14, 1962.
- Committee for New College. <u>Student Reactions to Study Facilities: With Implications for Architects and College Administrators.</u> Amherst, Mass.:
 The Committee (Amherst, Mount Holyoke, Smith, and Univ. of Mass.),
 1960.
- 8. Condon, J. T. "Study Habits and Perceptions of Desirable Study Space by California Community College Students." Education and Psychology Library, UCLA, 1966.
- 9. Educational Facilities Laboratories, Inc. Here They Learn. First Annual Report. New York. 1959.
- Educational Facilities Laboratories, Inc. <u>High Schools 1962</u>. New York. 1962.
- 11. Educational Facilities Laboratories, Inc. New Schools for New Education.
 New York. 1961.



- Educational Facilities Laboratories, Inc. <u>Schools for Team Teaching</u>. New York. 1961.
- 13. Educational Facilities Laboratories, Inc. <u>The Cost of a Schoolhouse</u>. New York. 1960.
- 14. Educational Facilities Laboratories, Inc. The School Library: Facilities for Independent Study in a Secondary School. New York. 1963.
- Educational Facilities Laboratories, Inc. <u>To Build or Not to Build</u>. New York. 1962.
- Educational Facilities Laboratories' Western Regional Center. <u>Study Carrels-Designs for Independent Study Space</u>. Stanford: The School Planning Laboratory, Stanford Univ., 1963.
- Foltz, Charles I. The World of Teaching Machines: Programmed Learning and Self-Instructional Devices. Washington, D. C.: Teaching Research and Technology Division of Electronic Teaching Laboratories, 1961.
- Gaddy, Dale. "Planning Junior College Facilities," <u>Junior College Research</u> Review. American Association of Junior Colleges, May 1969.
- 19. Garrett, Joe B. <u>The Carpeted Library</u>. New York: American Carpet Institute, 1964.
- Glen, M. "Organizing a Materials Center," National Education Association. <u>Principal</u>, 40:28-30. Jan 1961.
- Green, Alan C. "Educational Facilities with New Media." Washington, D. C.: N.E.A.: Department of Audio-Visual Instruction, 1966.
- 22. Gregory, M. A. "An Analysis of College Preparatory Developmental Programs for Low Achieving High School Graduates at Grand Rapids Junior College." Education and Psychology Library, UCLA, 1966.
- 23. Handy, R. F. "An Analysis of Academic Improvement in the Basic Studies Program in Miami-Dade Junior College." Education and Psychology Library, UCLA, 1966.



- Johnson, O. B. "A Comparison of Two Techniques for Improving Reading at College Level," Journal of Educational Research, 46:193-205. Nov 1952.
- Kalsick, A. J. <u>IRT Instructional Materials Center</u>. Lansing: Michigan Department of Education, Bulletin No. 369, 1965.
- Kerstiens, Gene. "Researching Learning Center Practices and Procedures."
 El Camino College, California, Jan 1970.
- List of Tachistoscopic and Accelerator Equipment--Appendix, Journal of Developmental Reading, 1:63-65. Oct 1957.
- 28. "League for Innovation in the Community College," Junior College Journal. Dec-Jan 1970.
- 29. Logan, Henry. "Lighting Libraries," Library Journal, 66:2125-9. Dec 15, 1952.
- 30. Lund, K. W. "New Definition of Education Goals," <u>Library Quarterly</u>. Jan 1961, pp. 10-16.
- 31. McAllister, D. "Junior College and Its Reading Program," <u>Junior College</u> <u>Journal</u>, 23:75-76. Oct 1953.
- McDonald, A. S. and Paul, W. J. "Teaching College Freshmen to Read," <u>Phi Delta Kappan</u>, 38:104-109. Dec 1956.
- McGuiness, D. J. "A Reading Laboratory at College Level," <u>Journal of Higner Education</u>, 22:98-101. Feb 1957.
- Mayhew, Lewis B. "Planners and Planning: A Report from the Community College Planning Center." Educational Facilities Laboratories, Inc., May 1966, p.73.
- 35. Metcalf, K. D. "Library Lighting," Library Journal, 86:4081-5. Dec 1, 1961.
- Michigan University's School of Public Health. Light and Vision. (Proceedings for a short course on light and vision.) Continued Education Series No. 76. Ann Arbor: Univ. of Michigan, 1958.



- 37. Miller, W. C. "What Is a Materials Center?" <u>Library Journal</u>, 85:4193-6. Nov 16, 1960.
- 38. Minnesota University. College of Education. <u>School Thermal Environment</u>, Minneapolis: Univ. of Minnesota, 1961.
- 39. Mullins, C. J. "A Use of Tachistoscope in Reading," <u>Junior College Journal</u>, 26:390-94. May 1956.
- 40. Newman, Loretta M. Building Basic College Reading Skills. Dubuque, Iowa: Wm. C. Brown Book Co., 1964.
- 41. Newman, Loretta M. College Reading and Study Improvement. Dubuque, Iowa: Wm. C. Brown Book Co., 1964.
- 42. Newman, Loretta M. "Survey of Reading and Study Skills Centers." Los Angeles Harbor College, Mar 1970. (Unpublished paper)
- 43. Nikas, O. B. "A Study of T-Oriented vs Machine-Oriented Developmental Reading Classes at the College Level," <u>Journal of Developmental Reading</u>, 8:214-16. Jan 1965.
- Olson, A. V.; Sanford, A.; and Ormacht, N. "Effectiveness of a Freshman Reading Program," <u>Journal of Developmental Reading</u>, 8:75-84. Nov 1964.
- 45. "Overcoming Reading Deficiency at Community College Level," <u>Journal of Developmental Reading</u>, 6:238-42. Spring 1963.
- 46. Pellettieri, A. J. School Executive, 74:42-3. Jly 1955.
- 47. "Promoting Reading Achievement," <u>Improving College and University Teaching</u>, 12:229-233. Autumn 1964.
- 48. "Recent Research in College and Adult Reading," <u>Journal of Developmental</u> Reading, 6:5-14. Autumn 1962.
- 49. Reed, Bob K., and Harper, Wm. A. "The College Facilities Thing." American Association of Junior College Planners, 1968.



- Santa, B. M. "Image of the Future: The Library's Responsibility." School Library Association, California Bulletin, 31:3-8. May 1960.
- 51. Schubert, D. G., "Comparative Study of the Hearing and Reading Vocabularies of Retarded College Readers." <u>Journal of Educational Research</u>, 46:555-8. Mar 1953.
- Sensor, Phyllis. "A Survey of the Equipment and Technique Used in Reading Courses for Low Ability Students in California Public Junior Colleges, 1962." Riverside City College, Calif., Nov 1963.
- 53. Sheldon, Wm. D, Jr. "Course in Reading and Study Skills," <u>Journal of</u> Higher Education, 23:44-46. Jan 1952.
- 54. Shores, L. <u>Instructional Materials: An Introduction for Teachers.</u> New York: Ronald Press, 1960.
- Skinner, B. F. "Teaching Machines." <u>Scientific American</u>, Vol. 205, #36.
 Nov 1961, p. 90-102.
- 56. Smith, D. E., and Wood, R. L. "Reading Improvement and College Grades," Journal of Educational Psychology, 46:151-9. Mar 1955.
- 57. Smith, Millard J. "What About Carpets?" Latham, N. Y.: EDRS, May 1964.
- 58. Stolurow, Lawrence M. <u>Teaching by Machine</u>. U.S. Office of Education, Cooperative Research Monograph No. 6. Washington, D. C.: Government Printing Office, 1961.
- Taylor, K. I. "West Leyden's (Illinois) Center for Instructional Materials," <u>Illinois</u> Libraries, 42:436-44. Sep 1960.
- Trump, J. Lloyd. Images of the Future. Washington, D.C.: National Association of Secondary School Principals, 1958.
- 61. Tucker, A. "An Investigation of Factors Contributing to and Interfering with the Successful Achievement of Remedial English Course Objectives in Los Angeles City Junior Colleges." Education and Psychology Library, UCLA, 1966.



- 62. "A University Reading Clinic." Improving College and University Teaching, 11:112-114. Spring 1963.
- 63. U. S. Department of Health, Education, and Welfare, Office of Education.

 New Dimensions in Junior College Planning. Stanford: The School Planning
 Laboratory. Stanford Univ., 1958.
- 64. Vandermeer, A. W. "A Critical View of Educational Media," <u>Library Quarterly</u>, Jan 1960. p. 47.
- 65. Vandermeer, A. W. "Fear of the New Media," American Library Association Bulletin, 55:799-802. Oct 1961.

General Sources

- American Institute of Architects, 1735 New York Avenue, N.W., Washington, D. C. 20006
- 67. American Library Association Building Institute, Kent State Univ., Kent, Ohio 44240
- 68. The Division of Audio-Visual Instruction of the National Education Association, 1201 Sixteenth St., N.W., Washington, D.C. 20006



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