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ABSTRACT

This document is an annotated bibliography consisting of 34 entries dealing with research on class size; the research is directed toward finding an optimum class size which would prove favorable not only to administrative and economic concerns but also to the performance of students. Some documents concern themselves with the question of large or small classrooms in television instruction and the use of large lecturing sessions in accommodating large classes. For the most part the findings show that large classes versus small classes have little or no effect in student performance. Several documents concern themselves with the issue of class size in relation to teacher work load and collective bargaining. Of the 34 entries, 12 are annotations on journal articles. This bibliography is part of a report that was originally prepared for an ad hoc committee of the National Council of Teachers of English's standing Committee on Research. (CK)

ED0 58210

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CLASS SIZE--DOES IT MAKE A DIFFERENCE?
(Review of the Research)

Compiled by Holly Smith
of the
NCTE/ERIC Clearinghouse on the Teaching of English

September 1971

National Council of Teachers of English
Educational Resources Information Center: Clearinghouse on the Teaching of English
1111 Kenyon Road, Urbana, Illinois 61801

TE 002 730

P R E F A C E

The following bibliography is part of a report that was originally prepared for an ad hoc committee of NCTE's standing Committee on Research who at this time is preparing a position statement on the subject. Its purpose is to collect and describe documents dealing with current theory about class size and its relationship to effectiveness in classroom instruction, especially in English, with the additional object of providing background information to researchers who are drafting a position statement on the subject.

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The following were included in the original report but excluded here due to copyrights.

2. What We Know About Learning from Instructional Television by Wilbur Schramm, Stanford University, Institute for Communication Research.
3. "Further Clarification of the Class Size Question," by William S. Vincent, Columbia University.
4. "The Workload of the Elementary School Teacher," a statement of policy of the NCTE.
5. Summary from Ford Financed Review of TV Use in Classrooms--taken from The National Program in the Use of Television in the Public Schools: A Report on the Second Year, New York: Ford Foundation.
6. "Smaller Classes Finally Win Research Support," from Education USA, May 10, 1971
7. "Classroom Variables That Predict School System Quality," by Martin N. Olson, IAR Research Bulletin, November 1970
8. "Identifying Quality in School Classrooms: Some Problems and Some Answers," by Martin N. Olson, MSSC Exchange, January 1971.
9. "Class Size & Pupil-Teacher Ratio: An Annotated Bibliography," report by the British Columbia Trustees Association, September 1970.
10. "The Effects of Class Size: A Research Report," by George Sitkei, Los Angeles County Superintendent of Schools.
11. Summary of Baltimore Study done by Orlando Furno and George Collins, Baltimore Public Schools.
12. "Writing Skills: Are Large Classes Conducive to Effective Learning," by Harold Hopper and Helen Keller, Indian River Junior College.

Class Size
(Research)

The following set of documents contains several research reports and their findings in relationship to the question of class size. The research is directed toward finding an optimum class size which would prove favorable not only to administrative and economic concerns but also to the performance of students.

ED 011 470

RC 000 774

THE SCHOOL DAY, THE SCHOOL YEAR AND WORK LOAD OF TEACHERS, A STUDY OF THE EDUCATIONAL IMPLICATIONS.
NEW YORK STATE TEACHERS ASSN., ALBANY

EDRS PRICE MF-\$0.69 HC-\$0.36 OF.

FUD DATE 80

DESCRIPTORS-- *CLASS LOAD, *CLASS SIZE, *EFFECTIVE TEACHING, *TEACHER EXPERIENCE, ALBANY, ELEMENTARY SCHOOLS, ENCYCLOPEDIA OF EDUCATIONAL RESEARCH, ENGLISH, GROUPING (INSTRUCTIONAL PURPOSES), HISTORY CITIZENSHIP, KINDERGARTEN, MATHEMATICS, NEW YORK CITY, RESEARCH METHODOLOGY, SCIENCE, SECONDARY SCHOOLS, STAFF PUPIL RATIO, UPSTATE CITIES AND VILLAGES, UPSTATE SUPERVISORY DISTRICTS.

THE ASSOCIATION FOUND THAT RESEARCH ON CLASS SIZE IS FREQUENTLY MISINTERPRETED EVEN BY EDUCATORS. IN ORDER TO CLARIFY TERMS, THIS STUDY USES THESE DEFINITIONS--CLASS SIZE IS THE NUMBER OF STUDENTS ASSIGNED TO A TEACHER FOR A PERIOD OF INSTRUCTION, CLASS LOAD IS THE NUMBER OF PUPILS FOR WHOM TEACHERS ARE RESPONSIBLE DAILY WHERE THE TEACHER IS ASSIGNED MORE THAN ONE CLASS EACH DAY, AND STAFFING RATIO REPRESENTS THE RATIO OF PROFESSIONAL STAFF (SUPERVISORS, ADMINISTRATORS, TEACHERS AND PROFESSIONAL PERSONNEL) TO PUPILS. APPROXIMATELY 80 PERCENT OF THE RESEARCH REVIEWED BY THIS STUDY GROUP EITHER SUBSTANTIATED THE VALUE OF SMALL CLASSES OR WAS INCONCLUSIVE. WHEN PRINCIPLES OF RESEARCH METHODOLOGY WERE APPLIED TO VARIABLES AFFECTING LEARNING, FIVE OUT OF EVERY SIX STUDIES TENDED TO FAVOR SMALL CLASSES. SINCE RESEARCH HAD NOT BEEN CONCLUSIVE, TEACHER JUDGMENT AND EXPERIENCE SHOULD BE GIVEN SERIOUS CONSIDERATION IN DETERMINATIONS OF CLASS SIZE. TEACHERS HAVE LEARNED THAT LARGE CLASSES FORCE DEVELOPMENT OF A GROUP NORM EXPECTANCY, WHEREAS SMALLER CLASSES ALLOW THE TEACHER TO BE INNOVATIVE, TO GIVE MORE ATTENTION TO INDIVIDUAL DIFFERENCES, AND TO EMPLOY BETTER TEACHING PRACTICES. ALTHOUGH RECOGNIZING THE DIFFICULTIES INVOLVED IN DETERMINING CLASS SIZE AND GROUPING POLICY, THE OPTIMUM CLASS SIZE OF 25 IS THE AVERAGE OF THOSE CLASS SIZES WHERE CONSIDERATION HAS BEEN GIVEN TO PURPOSE, GROUPING, EDUCATIONAL PHILOSOPHY, PUPIL CHARACTERISTICS, AND DIFFERENT KINDS OF LEARNING. (GR)

ED 032 614

EA 002 489

Varner, Sherrell E.
Class Size.
National Education Association, Washington, D.C.
Report No--RS-1968-S1
Pub Date 68
Note--50p

Available from--Publications Sales Section, National Education Association, 1201 Sixteenth St. N.W., Washington, D.C. 20036 (Stock #434-22810, single copy \$1.00, quantity discounts).

EDRS Price MF-\$0.25 HC Not Available from EDRS.

Descriptors--Bibliographies, Board of Education Policy, Class Organization, *Class Size, Collective Negotiation, Educational Finance, Educational Innovation, *Educational Trends, Literature Reviews, Professional Associations, Public Schools, *Research Reviews (Publications), School Policy, Staff Utilization, *Standards, *Student Teacher Ratio

Two basic reasons for concern over classrooms are the desire to optimize learning conditions and the tremendous impact of class size on school finances. The first reason of concern is not as well defined as the second. Rather than looking for the optimum figure, as has been done in the past, the question should read "Best classroom size for what ends and under what circumstances?" New methods of classroom organization and staff utilization which include team teaching, nongrading, flexible scheduling with large/small group and independent instruction, use of paraprofessional personnel, and vertical and horizontal grouping have been considered among the variables in recent analyses of classroom size. Related to these considerations are grade level classes from kindergarten through college. A literature review of this research is accompanied by recommendations, standards, and written policy statements of educational bodies. (LN)

ED 025 003

EA 001 751

Turna, Orlando F. Collins, George J.
Class Size and Pupil Learning.
Baltimore City Public Schools, Md.
Pub Date Oct 67
Note--153p.

EDRS Price MF-\$0.75 HC-\$7.75

Descriptors--Ability Grouping, *Achievement Gains, *Arithmetic, *Class Size, Culturally Disadvantaged, Educational Research, Grade 3, Intelligence Quotient, *Learning Processes, Literature Reviews, Parental Background, Racial Factors, *Reading Achievement, Research Design, Special Education, Statistical Analysis, Teacher Experience

To test the hypothesis that pupil achievement is inversely related to class size, a 5-year study (1959-1964) examined the relationship between class size and pupil achievement in reading and arithmetic. Data were taken from records of the Baltimore public school system for all 16,449 grade 3 pupils in the class of 1959, comprised of 6,568 regular white pupils, 8,341 regular nonwhite pupils, 441 special education white pupils, and 1,099 special education nonwhite pupils. Pupils in smaller classes in both the regular and special education curricula were found to make significantly greater achievement gains than students in larger classes. Smallest class size (1-25) was considerably more productive for nonwhite than for white students. Other variables correlated to class size and pupil achievement included pupil home mobility, parental occupation and level of education, percentage of nonwhite faculty, faculty knowledge, and faculty experience. A review of related research and a description of the research design are included. Extensive comparisons from the study's findings are tabulated and described. (JK)

ED 034 303

EA 002 624

Vincent, William S.
Further Clarification of the Class Size Question.
Columbia Univ., New York, N.Y. Inst. of Administrative Research.
Pub Date Nov 68
Note--4p.
Journal Cit--IAR-Research Bulletin; v9 n1 p1-3
Nov 68

EDRS Price MF-\$0.25 HC-\$0.30

Descriptors--*Class Size, *Elementary Grades, *Measurement Instruments, *Research Reviews (Publications), *Secondary Grades

This research is directed at finding an optimum class size in elementary and secondary grades. The Indicators of Quality program observes

selected classroom characteristics and scores each characteristic positive, zero, or negative. The difference between the positive and negative scores provides a measure to compare with class size. Data from 47 school districts of the Metropolitan School Study Council show a progressively larger difference as class size decreases. In the elementary grades a significant break occurs between the 11-15 and 16-20 and the 21-25 and 26-30 class size intervals. In the secondary grades, the only significant break occurs between the 11-15 and 16-20 class size intervals. This process measure provides useful categories on large and small classes. Combining the results of this study with achievement test criterion will further resolve the class size question. (LN)

ED 041 586 JC 700 197

Silver, A. H.
English Department Large-Small Class Study: English 50-60, Revised.

Pub Date Jul 70

Note—9p

EDRS Price MF-\$0.25 HC Not Available from EDRS.

Descriptors—*Academic Achievement, *Class Size, *Educational Research, *English Instruction, *Junior Colleges

Identifiers—*California, Iowa Test of Educational Development

The achievement of students placed in large English classes (maximum enrollment 100) at Bakersfield Junior College, California, was compared with that of students placed in regular-sized (maximum enrollment 35) sections presenting similar material. At the completion of the fall 1969 semester, students took the Iowa Test of Educational Development, and their results were compared with previous scores on this test—a test they had taken as part of the college's entrance examination. Gains for the large-group students were significantly better than for those in the regular English 50 classes. Mean and median score gains for the large-group and regular English 60 students differed insignificantly. A comparison of these groups' subsequent English course completion rates and mean GPA's revealed no significant differences. These results justified the continuation of large group classes. (Because of marginal reproducibility of original, this document is not available in hard copy.) (JO)

ED 043 124

EA 003 074

Sitkei, E. George

The Effects of Class Size: A Review of the Research. Research Study Series, 1967-68.

Los Angeles County Superintendent of Schools, Calif.

Report No—RR-4

Pub Date [68]

Note—13p.

EDRS Price MF-\$0.25 HC-\$0.75

Descriptors—*Class Size, Costs, *Educational Quality, *Student Teacher Ratio, Teacher Qualifications

This report reviews past research on the subject of class size and arrives at a summary of findings that may either aid further research or provide some basis for administrative decisions. The findings touch upon many phases of administrative responsibility and have immediate cost and quality implications. Tables and a bibliography are provided. (JF)

2521 RESEARCH STUDIES ON KINDERGARTEN EDUCATION. Albany, N.Y.: University of the State of New York, State Education Department, 1964. 32 p. ERIC prices: MF—\$.09 HC—\$1.36

A bibliography of research studies on kindergarten education reported between 1923 and 1964 is divided into four annotated sections. The first listing deals with values in kindergarten education: as a factor in adjustment, achievement, and progress in elementary school; as a factor in reading achievement and in prediction of reading success. Considered in the second group are entrance age and class size as factors in kindergarten education. Research on beginning reading with implication for kindergarten education is reviewed next and is subdivided into the age of beginning reading, reading activities, and such reading factors as experience and informational background, mental age, readiness, and visual development. The final section contains relevant recent research on intellectual development and learning. The material is reported in professional journals or in government publications and is annotated.

Class Size
(Comments and Discussion)

The topic of class size has been a subject of discussion in many educational circles. Some of the reports tell of school systems that have attempted to reduce their class size; others try to evaluate its effect in different teaching situations.

ED 013 864 UD 004 351

MCCLELLAND, SAMUEL D.
EVALUATION OF THE MORE EFFECTIVE
SCHOOLS PROGRAM, SUMMARY REPORT,
NEW YORK CITY BOARD OF EDUCATION,
BROOKLYN, N.Y.

PUB DATE SEP 66

EDRS PRICE MF-\$0.50 HC-\$1.20 78P.

DESCRIPTORS *BASIC SKILLS, *ELEMENTARY SCHOOLS, *PROGRAM EVALUATION, CLASS SIZE, COMMUNITY INVOLVEMENT, DISADVANTAGED YOUTH, HETEROGENEOUS GROUPING, INSTRUCTIONAL INNOVATION, LANGUAGE SKILLS, MORE EFFECTIVE SCHOOLS, NEW YORK CITY, OBJECTIVES, PRESCHOOL PROGRAMS, SCHOOL PERSONNEL, SPEECH IMPROVEMENT, STATISTICAL DATA, STUDENT IMPROVEMENT.

THIS REPORT SUMMARIZES THE NEW YORK CITY BOARD OF EDUCATION EVALUATION OF ITS MORE EFFECTIVE SCHOOLS (MES) PROGRAM. MES, ESTABLISHED TO IMPROVE THE BASIC READING AND ARITHMETIC SKILLS OF DISADVANTAGED ELEMENTARY SCHOOL CHILDREN, WAS INSTITUTED IN 21 SCHOOLS HAVING THE HIGHEST NUMBER OF PUPILS WITH LOW READING LEVELS, ENGLISH LANGUAGE HANDICAPS, AND LOW INCOME BACKGROUNDS. ITS SALIENT FEATURES WERE PRESCHOOL CLASSES, REDUCED CLASS SIZE, ADDITIONAL ADMINISTRATIVE AND ANCILLARY PERSONNEL, AND HETEROGENEOUS GROUPING. SOME OF ITS GOALS WERE TO CONDUCT THE PROGRAM IN INTEGRATED SCHOOLS AND TO ACTIVELY INVOLVE THE COMMUNITY. INNOVATIONS IN TEACHING METHODS AND MATERIALS WERE ALSO PART OF THE PROGRAM. ONE CHAPTER OF THE REPORT OUTLINES THE PROPOSED GOALS OF THE PROGRAM AND EXAMINES THE EXTENT TO WHICH THEY WERE IMPLEMENTED. ANOTHER CHAPTER OFFERS SELECTED DESCRIPTIVE STATISTICS AND THE FOLLOWING ONE REPORTS THE EFFECTIVENESS OF THE PROJECT IN STIMULATING PUPIL GROWTH IN READING AND ARITHMETIC. OTHER CHAPTERS DESCRIBE TWO LANGUAGE DEVELOPMENT PROJECTS AND SUMMARIZE THE REACTIONS OF ADMINISTRATORS, TEACHERS, AND PARENTS TO THE MES PROGRAM. THE RESULTS OF THE APPRAISAL ARE "GENERALLY FAVORABLE." THE REDUCED CLASS SIZE AND PREKINDERGARTENS WERE SOME OF THE MOST VALUED FEATURES. TEST RESULTS SHOWED FAVORABLE PUPIL GROWTH IN READING, ARITHMETIC, SPEECH, AND ORAL COMMUNICATION. THE MAJOR RESERVATIONS WERE ABOUT THE GROUPINGS, THE LARGE ADDITION OF SCHOOL STAFF, AND THE NEED TO MEET THE DEMANDS TO ESTABLISH MES IN OTHER COMMUNITIES (NH).

ESTABLISH MES IN OTHER COMMUNITIES (NH)

2105 Clinchy, Evans. PROFILES OF SIGNIFICANT SCHOOLS: NEWTON SOUTH HIGH SCHOOL, NEWTON, MASSACHUSETTS. New York, N.Y.: Educational Facilities Laboratories, Inc. Feb. 1960. 32 p. ERIC prices: MF—\$.09 HC—\$1.40

A report designed to acquaint school administrators with a new development in school planning and design is presented. It attempts to show why the school was designed as it was, how it was designed and built, the educational basis of the design, and the relation of the school to the program for which it was planned.

Such topics as the community background, reasons for building the new high school, class organization, the unique house plan of the school, the buildings that constitute the school plant, and cost information are briefly discussed. Newton South is designed to house a program of varying class sizes. Accommodations for large group instruction will enable the continuation of the Newton Plan studies of the present high school, and more room and more appropriate facilities will make small group instruction more feasible than it was in the old school. The student body will be divided among three houses situated in three separate buildings, with about 500 students per house. Each house will have its own housemaster, usually an experienced teacher, and its own full-time guidance counselor; they will form the nucleus of the staff. The school, consisting of six two-story buildings grouped around a library, contains 214,798 square feet of space and will cost \$14.16 per square foot and \$2,028 per pupil at the designed load of 1,500 students.

ED 037 615 AC 006 437

Jacobson, Myrtle S. Offenbacher, Deborah L.
Accent on Adults: The Small College Program at Brooklyn.

Syracuse Univ., N.Y. Publications Program in Continuing Education.
Pub Date 70

Note—36p.; Occasional Papers No. 19
Available from—Syracuse University Library of Continuing Education, 107 Roney Lane, Syracuse, New York 13210 (\$5.50)

Document Not Available from EDRS.
Descriptors—*Adult Students, *Class Size, College Admission, *Educational Background, *Educational Opportunities, *Higher Education, Participant Characteristics, Program Evaluation, Student Motivation, Teacher Role

An attempt is made to state unique elements of the Small College Program at Brooklyn. The book explains that few opportunities are available to older adults, that "small" is used to describe the class size (20) which is responsible for the primary group atmosphere created, and that admission is based on criteria, such as experience and interests, which are different from those used in other colleges. Attention is also directed to the students' background, motivation, and academic skills. A section, "The First Year in Retrospect," deals with the students' and teachers' reaction to the program and the sense of achievement felt by the participants. Finally, the year's program is evaluated. (NL)

ED 013 341 24 AA 000 193

MCKEACHIE, WILBERT J.
NEW DEVELOPMENTS IN TEACHING. NEW DIMENSIONS IN HIGHER EDUCATION, NUMBER 16.

DUKE UNIV., DURHAM, N.C.
REPORT NUMBER HR-6-1722-16

PUB DATE APR 67

CONTRACT OEC-2-6-061722-1742

EDRS PRICE MF-\$0.50 HC-\$1.00 (110P.)

DESCRIPTORS *COLLEGE INSTRUCTION, *EDUCATIONAL CHANGE, *EFFECTIVE TEACHING, *METHODS RESEARCH, *TEACHING METHODS, AUDIOVISUAL AIDS, CLASS SIZE, DISCUSSION (TEACHING TECHNIQUE), DISCUSSION GROUPS, EDUCATIONAL NEEDS, LITERATURE REVIEWS, PROGRAMED INSTRUCTION, TEACHING TECHNIQUES.

RESEARCH ON TEACHING METHODS WAS REVIEWED TO DETERMINE WHAT IS KNOWN ABOUT ACHIEVING EFFECTIVE TEACHING. EMPHASIS WAS PLACED ON EMPIRICAL RESEARCH, BOTH HISTORICAL AND CONTEMPORARY, RATHER THAN THEORETICAL INNOVATIONS. DISCUSSIONS WERE PRESENTED ON (1) COURSE CONTENT AND CLASS SIZE, (2) TRADITIONAL TEACHING METHODS OF LECTURE AND DISCUSSION EMPHASIZING STUDENT-CENTERED DISCUSSIONS AND INSTRUCTOR-LESS STUDENT DISCUSSION GROUPS, AND (3) NEW TEACHING METHODS (EXPERIMENTAL LEARNING, PROGRAMED LEARNING, INDEPENDENT STUDY, LABORATORY METHODS, AND AUDIOVISUAL AIDS). CONCLUSIONS INDICATED THAT THERE WAS NO ONE BEST METHOD FOR ALL GOALS, STUDENTS, OR TEACHERS, BUT THAT THE BEST METHOD IS A FUNCTION OF EACH OF THESE. INDICATIONS WERE ALSO MADE THAT THERE HAS BEEN CONSIDERABLE IMPROVEMENT IN THE MAJOR AREAS REVIEWED. AN IMPLICATION OF THESE FINDINGS INDICATED THAT ONE SHOULD EXPECT TO FIND A VARIETY OF TEACHING METHODS AND THAT TEACHERS SHOULD DEVELOP A VARIETY OF SKILLS. (RS)

TV Instruction
large vs. small

The following documents concern themselves with the question of large or small classrooms in television instruction and the use of large lecture sessions in accommodating large classes. For the most part the findings show that large classes versus small classes have little or no effect in student performance.

2739 THE NATIONAL PROGRAM IN THE USE OF TELEVISION IN THE PUBLIC SCHOOLS: A REPORT ON THE SECOND YEAR, 1958-59. New York, N.Y.: The Ford Foundation and Fund for the Advancement of Education, June 1960. 123 p. ERIC prices: MF—\$.18 HC—\$5.00

The National Program in the Use of Television in the Public Schools was an effort to determine the feasibility of using televised instruction as a major resource in the teaching of large classes. It was also concerned with: the kind and amount of other services needed to set up optimum conditions for learning; scheduling and school building problems involved; the budgetary implications of savings in time, space, and other costs; the best ways to develop teacher talent for television and for large class situations; and how to develop the best possible televised programs.

Nearly 40,000 students in more than 200 elementary, junior high, and high schools, received part of their daily instruction over television in large classes during the first year of the experiment. Procedures and results are described, but the emphasis of the report is on the second year, during which all of the participating schools except one continued in the program and most of them expanded their participation. New subjects were added to the list of televised courses in many school systems. The original courses were revised in light of experiences of the first year. Course content was changed to capitalize on the strengths of visual presentation. Since it was demonstrated that there was no single ideal pat-

tern, several school systems tried variations in length and frequency of the telecasts in the second year.

Test results showed for the second consecutive year that students who received part of their instruction over television in large classes usually did as well as, and in many cases significantly better than, students taught by conventional methods in small classes. Out of 141 different comparisons, in which the performance of 43,105 television students was matched against that of 26,092 control students of equal ability, 97 comparisons favored the television students and 44 favored the control students. Many other advantages of televised instruction were supported by the evidence.

2181 Barnes, Melvin W. LARGE-GROUP INSTRUCTION IN TELEVISION. Oklahoma City, Okla.: State Department of Education, Jan. 1961. 4 p. ERIC prices: MF—\$.09 HC—\$.28

In an attempt to improve the quality of instruction, several varieties of educational television have begun in Oklahoma City. In four large elementary schools, half of the pupils' time has been spent in fairly large groups and the other half in smaller, conventional-sized groups. Small groups were

used for teaching the 3R's; science, art, music, physical education, and safety were taught in large groups. In the secondary schools, 7th grade scientific geography, 7th grade language arts, and high school chemistry were taught by television.

Results showed that better interaction occurred in small groups than in the typical conventional classrooms. Present demands on the schools to become more effective and more efficient demonstrate the need for upgrading subject matter and reorganizing the curriculum, especially in mathematics, science, foreign language, and the language arts.

2561 Schramm, Wilbur. WHAT WE KNOW ABOUT LEARNING FROM INSTRUCTIONAL TELEVISION. Stanford, Calif.: Stanford University, Institute for Communication Research, 35 p. ERIC prices: MF—\$.09 HC—\$1.48

Televised instruction was found to be as effective as classroom instruction when results were measured by final examinations or by standardized tests. Student attitudes toward instructional television were varied; grade school students thought they learned more from televised classes, but high school and college students were doubtful. College students were generally less enthusiastic than high school students. Attitudes of college students depended partially on the subject involved. Most television teachers favored the medium, whereas those who did not teach tended to be suspicious and resistant. Teacher attitudes varied with the subject involved.

When viewing conditions were equally satisfactory, class size had no effect on learning from television. Most studies found no significant differences in retention of subject matter whether the teaching was face-to-face or by television. A novelty effect was present in most of the studies, but it was not always favorable. Such intangible losses through televised teaching as lack of social interaction and lack of concern for individual differences were found, but television students did well in tests of critical thinking, problem-solving, and other non-rote aspects of learning. Research on the relation of forms of televised teaching to learning has reinforced the belief that good teaching is the same on television, film, or the lecture platform.

ED 020 610 EF 001 800
LARGE LECTURE SECTION QUESTIONNAIRE.
SUMMARY OF RESPONSES.
PENNSYLVANIA UNIV. PHILADELPHIA, U.
NIV. PLAN. OFFICE

PUB DATE JUN 65
EDRS PRICE MF-\$0.25 HC-\$0.68 15P.
DESCRIPTORS— *CLASS SIZE, *EVALUATION
METHODS, *SPACE UTILIZATION, *SURVEYS, *U-
NIVERSITIES, DATA COLLECTION, LISTENING
GROUPS, PHILADELPHIA, STUDENT ENROLL-
MENT.

TO ASSIST IN STUDYING THE PROBLEM OF
ACCOMMODATING LARGE CLASS SECTIONS,
THE PENNSYLVANIA UNIVERSITY PLANNING
OFFICE CONDUCTED A STUDY TO DETERMINE
THE NATURE OF THE EXPERIENCES WITH
LARGE GROUP TEACHING IN FORTY-TWO
MAJOR COLLEGES AND UNIVERSITIES
THROUGHOUT THE COUNTRY. RESPONSES BY
THIRTY-SEVEN INSTITUTIONS ARE INCLUDED
IN THIS REPORT INDICATING UNDER-GRADU-
ATE ENROLLMENT, SIZE OF THE LARGE LEC-
TURE SECTIONS, ESTIMATED RESULTS OF
LARGE GROUP PRESENTATIONS, TYPE OF
FACILITIES AVAILABLE, THE INSTITUTION'S
INTENT TO CONTINUE THESE SECTIONS, AND
ANY ADDITIONAL COMMENTS BY THE RESPON-
DENTS ON THE USE OF LARGE LECTURE
PRESENTATIONS. INFORMATION IS LIMITED IN
THAT NO SIGNIFICANT INFORMATION IS PRO-
VIDED ABOUT RESPONSES OF FACULTY AND
STUDENTS TO THE VARIOUS METHODS OF

DEALING WITH LARGE COURSE ENROLL-
MENTS, THE EXTENT TO WHICH FACTORS OF
ECONOMY, EFFICIENCY, EDUCATIONAL
PHILOSOPHY, OR SIMPLE EXPEDIENCE WHICH
MAY AFFECT THE DECISIONS TO SCHEDULE
LARGE LECTURE SECTIONS WAS NOT
REVEALED BY THE STUDY. THE MAJORITY OF
RESPONSES INDICATED THAT A LARGE GROUP
PRESENTATION HAS GIVEN VERY SATISFACTO-
RY TO ADEQUATE RESULTS AND MOST PLAN
TO CONTINUE THIS TYPE OF PRESENTATION.
(BH)

ED 012 583 JC 660 101
HOPPER, HAROLD H. KELLER, HELEN
WRITING SKILLS--ARE LARGE CLASSES
CONDUCTIVE TO EFFECTIVE LEARNING.
INDIAN RIVER JUNIOR COLL., FORT
PIERCE, FLA.

PUB DATE 66
EDRS PRICE MF-\$0.25 HC-\$0.52 13P.
DESCRIPTORS *CLASS SIZE, *COMPOSI-
TION SKILLS (LITERARY), *ENGLISH IN-
STRUCTION, *JUNIOR COLLEGES, *WRIT-
ING SKILLS, EXPERIMENTAL PROGRAMS,
FORT PIERCE,

BY A STRATIFIED RANDOM SAMPLING,
274 STUDENTS WERE ASSIGNED TO
THREE SECTIONS OF 66 STUDENTS EACH
AND FOUR SECTIONS OF 28 STUDENTS.
EVALUATION OF THE INSTRUCTION IN
THE LARGE AND SMALL GROUPS IN-
VOLVED ANALYSIS OF TWO ESSAYS AND
INSTRUCTOR-STUDENT EVALUATIONS.
WHILE THERE WAS SOME VARIATION IN
STUDENT PREFERENCES, THE RESULTS
OF THE PRETEST AND THE POST-TEST
SHOW THAT, GIVEN THE SAME QUALITY
OF INSTRUCTORS, PROGRAM, AND STU-
DENTS INVOLVED IN THIS EXPERIMENT,
CLASS SIZE UP TO 66 DOES NOT SEEM TO
BE A SIGNIFICANT VARIABLE IN THE
LEARNING OF WRITING SKILLS. (WO)

Work Load Study

Class size is also an issue when teacher work load is discussed. The next set of documents concerns itself with work load and how class size figures into the discussions at hand.

ED 013 595 JC 660 034
INSTRUCTIONAL LOAD STUDY,
FOOTHILL COLLEGE, LOS ALTOS, CALIF.
PUB DATE 01 MAR 66
EDRS PRICE MF \$0.25 HC \$0.88 20P.
DESCRIPTORS CLASS SIZE, JUNIOR
COLLEGES, STUDENT TEACHER RATIO,
TEACHING LOAD.

FACULTY INSTRUCTIONAL LOADS AT
FOOTHILL COLLEGE ARE COMPUTED BY
MEANS OF A FORMULA WHICH INCLUDES
(1) TIME SPENT IN CLASSES, (2) TIME FOR
PREPARATION AND EVALUATION OF
TEACHING MATERIALS FOR EACH DIF-
FERENT PREPARATION, (3) DUPLICATE
PREPARATIONS, (4) ACTIVITY OR QUIZ
SECTIONS, (5) CLASS SIZE, AND (6) FACUL-
TY-STUDENT CONTACTS OUTSIDE OF THE
CLASSROOM SITUATION. APPLICATION
OF THE FORMULA, HOUR MEASURE, RE-
SULTS IN WIDE VARIATIONS IN COMPUT-
ED LOAD AMONG DEPARTMENTS AND IN-
DIVIDUAL INSTRUCTORS. QUESTIONS
RAISED BY THE STUDY INVOLVE (1)
METHODS OF ACCOUNTING FOR NONIN-
STRUCTIONAL ACTIVITIES, (2) PREVEN-
TION OF OVERLOAD, ESPECIALLY AMONG
NEW INSTRUCTORS, (3) USE OF UNDER-
LOADED INSTRUCTORS ON SPECIAL PRO-
JECTS, (4) EQUATING OF LABORATORY
AND LECTURE COURSES, (5) EVALUATION
OF COURSES REQUIRING MUCH INDIVI-
DUAL STUDENT CONTACT, (6) EQUATING
OF LARGE AND SMALL CLASSES, AND (7)
EVALUATION OF READER AND ASSIST-
ANT SERVICES. TABLES SHOW DETAILS
OF THE LOAD SURVEY FOR INSTRU-
CTIONAL DIVISIONS, FOR INDIVIDUAL FA-
CULTY MEMBERS, AND IN COMPARISON
WITH SELECTED COLLEGES. (W0)

ED 016 672 TE 000 292
THE WORKLOAD OF THE ELEMENTARY
SCHOOL TEACHER.
NATIONAL COUNCIL OF TEACHERS OF
ENGL. CHAMPAIGN, ILL.
ILLINOIS ASSN. OF TEACHERS OF EN-
GLISH, URBANA
PUB DATE FEB 68
EDRS PRICE MF \$0.25 HC \$0.36 7P.
DESCRIPTORS ELEMENTARY SCHOOL
TEACHERS, ELEMENTARY SCHOOLS,
ENGLISH INSTRUCTION, GUIDELINES,
TEACHING LOAD, CLASS SIZE, ELEMEN-
TARY EDUCATION, ELEMENTARY
SCHOOL LIBRARIES, INSERVICE TEACHER
EDUCATION, INSTRUCTIONAL MA-
TERIALS CENTERS, LANGUAGE ARTS,
NCTE, NONINSTRUCTIONAL RESPONSIBI-
LITY.

THE NCTE COMMITTEE ON WORKLOAD
OF THE ELEMENTARY TEACHER BEL-
IEVES THAT EFFECTIVE INSTRUCTION IN
ENGLISH DEPENDS UPON THE EFFORTS
OF THE ELEMENTARY TEACHER, BUT
THAT THESE EFFORTS ARE OFTEN VI-
TIATED BY CONDITIONS BEYOND THE
TEACHER'S IMMEDIATE CONTROL. PRI-
MARY AMONG THESE CONDITIONS ARE
CLASS SIZE, AVAILABILITY OF PLAN-
NING TIME, NONINSTRUCTIONAL
RESPONSIBILITIES, ACCESS TO INSTRU-
CTIONAL MATERIALS, AND OPPORTUNITY
FOR CONTINUING PROFESSIONAL
GROWTH. THEREFORE, IN THE INTEREST
OF BETTER TEACHING OF ENGLISH IN
THE ELEMENTARY SCHOOLS, THE NA-
TIONAL COUNCIL OF TEACHERS OF EN-
GLISH RECOMMENDS A RATIO OF 25 PU-
PILS PER TEACHER, PROVISIONS FOR
DAILY PLANNING TIME, CLERKS TO AID
TEACHERS, A LIBRARY AND AN INSTRU-
CTIONAL MATERIALS CENTER, AND THE
CONSIDERATION OF INSERVICE TRAIN-
ING AS PART OF THE TEACHER'S WORK-
LOAD. (THIS ARTICLE APPEARED IN THE
"ILLINOIS ENGLISH BULLETIN," FEBRU-
ARY 1968.) (DL)

ED 023 678 TE 000 937
Wade, Durlyn E.
Class Size and Teacher Load in High School En-
glish. New York State English Council Mono-
graphy No. 8.
New York State English Council, Syracuse.
Pub Date 64
Note-51p.
Available from-National Council of Teachers of
English, 508 South Sixth Street, Champaign, Il-
linois 61820 (Stock No. 17305, \$5.50).
Document Not Available from EDRS.
Descriptors-Class Size, English Instruction,
Noninstructional Responsibility, Parochial
Schools, Private Schools, Public Schools,
Scheduling, School Schedules, Secondary
School Teachers, Small Classes, Special
Classes, Special Education, Student Grouping,
Student Teacher Ratio, Teaching Conditions,
Teaching Load, Teaching Quality
To determine the class size and teaching load
of secondary teachers of English in New York
state, the Research Committee of the State En-
glish Council mailed 1,093 questionnaires to
chairmen of English Departments in the state's
registered public and private secondary schools.
The 694 usable replies--representing 4,410 full-
time English teachers--were analyzed and com-
pared to the recommendation of the National
Council of Teachers of English that English
teachers be assigned four classes, each not more
than 25 pupils. Results showed that class sizes in
schools outside New York City averaged 27 for
grade 7, 26 for grade 8, 25 for grade 9, 24 for
grades 10 and 11, and 23 for grade 12. In New
York City, grade 9 class size averaged 33; grades
10, 11, and 12 averaged 34. Class sizes in private
and parochial schools in the New York City area
averaged 22 in grades 7 and 8, 33 in grade 9, 34
in grade 10, and 32 in grades 11 and 12. It was
also found that most schools outside New York
City provided elective classes in grade 12. The
majority of schools reported eight 45-49 minute
periods per day with teachers responsible for five
classes and the supervision of certain school ac-
tivities. Special programs, in which classes were
smaller, were provided for above- and below-
average students. (JS)

Collective Bargaining

When teachers gather around the collective bargaining table, class size is generally introduced as a topic of discussion and reduced class size is usually an item that appears on the list of their demands. The following document deals with this aspect of class size.

ED 025 026

EA 001 841

Rehmus, Charles M. Wilner, Evan

The Economic Results of Teacher Bargaining: Michigan's First Two Years. Number 6, The Research Papers in Industrial Relations and Human Resources.

Michigan Univ., Ann Arbor. Inst. of Labor and Industrial Relations.; Wayne State Univ., Detroit, Mich. Inst. of Labor and Industrial Relations.

Pub Date May 68

Note—41p.

Available from—Publications Office, Institute of Labor and Industrial Relations, P.O. Box 1567, Ann Arbor, Michigan 48106 (\$1.00).

EDRS Price MF-50.25 HC-\$2.15

Descriptors—*Class Size, *Collective Negotiation, *Economic Research, Equalization Aid, Expenditure Per Student, Fringe Benefits, Labor Legislation, Operating Expenses, Salary Differentials, *School Districts, School Taxes, State Legislation, *Teacher Salaries, Teacher Strikes

Identifiers—Michigan, Michigan Education Association, Michigan Federation of Teachers

A sample of Michigan cities is the basis for an evaluation of the economic benefits of collective bargaining to teachers and the economic impact of bargaining upon the school districts that employ and negotiate with them. The study's conclusions include: (1) Bargaining produced pay increases averaging 10 to 20 percent higher than teachers would otherwise have received, (2) the average annual increase in salaries for inexperienced teachers was three times as large after bargaining as it was before, (3) collective bargaining tended to make salary rates uniform among the school districts studied, (4) teachers have not yet received significant concessions in the bargaining issue of class size, (5) increases in teacher salaries resulting from bargaining have substantially increased the size of operating budgets per pupil, but not at the expense of other budget elements, and (6) bargaining-induced increases in teacher compensation were paid for largely by minor economies and from new revenues. (TT)

Migrant-Integration and Disadvantaged

Class size invariably affects the teaching of migrant- and disadvantaged children. Class size even works into the issue of integrated schools. The following documents focus on this aspect over the question of small or large classes.

2659(R) Potts, Alfred M. EDUCATION OF THE MIGRANT CHILD. Denver, Colo.: State Department of Education. July 1962. 9 p. ERIC prices: MF—\$.09 HC—\$.48

The educative process should aid the migrant children to live a fuller life in relation to their potential and should contain broader and less restrictive patterns of cultural expectancies. Although academic knowledge is essential, a more prominent place must be assigned to areas of knowledge related to comprehension of culturally inspired responses.

Practices to promote the kind of learning that relates to cultural expectancies and to promote the abilities to respond adequately in human interrelationships should be utilized. Class size should be reduced to fifteen, therefore allowing for individualization. Teachers should be competent in all subjects within a range of at least two grades above and below the assigned grade; total departmentalization should be avoided at least into seventh grade. In order to develop the will to continue education, a self-contained classroom is recommended. Another practice is experiential learning, in which children are helped to understand certain meanings and concepts by enlisting their active participation in demonstrations of the concept being learned, e.g. field trips.

2053 PLAN FOR BETTER EDUCATION THROUGH INTEGRATION. New York, N.Y.: New York City Public Schools. Jan. 1964. 14 p. ERIC prices: MF—\$.09 HC—\$.68

In order to prepare pupils to participate fully, regardless of environmental handicap, in economic, social, and political life, schools should make improvements in the problem of desegregation. Specific plans undertaken by New York City required the study of certain aspects of education—elementary school community zoning, junior high school feeder pattern changes, school assignment change for relief of overcrowding and for better integration, the Free Choice Transfer Plan, educational parks, site selection, ethnic integration in school staffs, further expansion of the central zoning unit, expansion of the human relations unit, staff orientation and training, and community participation and support.

Plans for improving the quality of education should contain such suggestions as elimination of group intelligence tests, reduction of class size, betterment of kindergarten and prekindergarten programs, and improvement of recruitment and promotion programs for Negro and Puerto Rican teachers and supervisors.

Journal Articles

The following is a list of journal articles dealing with the question of class size. Some of the articles appeared in Current Index to Journals in Education (CIJE) and are marked by their EJ numbers. Others were found in various bibliographies that deal with the problems of class size or teacher load.

EJ 011 771

"Class Size: Attitude and Action," NEA Research Bulletin 47(December 1969): 115-16.

Dusel, William. "Determining an Efficient Teaching Load in English," California English Bulletin, March 15, 1956.

Fitzpatrick, Edward A. "Small Classes and Educational Efficiency," American School Board Journal 138(March 1959): 50.

Hoover, Kenneth H. "Flexible Scheduling and Affective Learning," Educational Research 12(November 1969): 70-72.

EJ 018 853

Hoover, Kenneth H., et al. "The Influence of Class-Size Variations on Cognitive and Affective Learning of College Freshmen," Journal of Experimental Research 38(Spring 1970): 39-43.

Johnson, Robert H., and Lobb M. Delbert. "Jefferson County, Colorado, Completes Three-Year Study of Staffing, Changing Class Size, Programming, and Scheduling," Bulletin of the National Association of Secondary School Principals 45(January 1961): 57-58.

EJ 007 213

Mitchell, Bruce M. "Small Class Size: A Panacea for Educational Ills?" Peabody Journal of Education 47(July 1969): 32-35.

Ross, Donald H., and Bernard McKenna. Class Size: The Multi-Million Dollar Question, Metropolitan School Study Council, Institute of Administrative Research. New York: Teachers College, Columbia University, 1955. 24pp.

EJ 001 922

"Should a School Have Fewer Specialists in Order to Reduce Class Size?" Instructor 78(March 1969): 41.

EJ 000 409

Shuman, R. Baird. "Toward Reorganizing Secondary School English," School and Society 97(February 1969): 97-98.

EJ 004 444

Stark, George K. "Mass Communication and Faculty/Student Dialogue," Art Education 22(April 1969): 22-23.

EJ 003 810

Stones, E. "Students' Attitudes to the Size of Teaching Groups," Educational Review 21(February 1969): 98-108.

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