

RESEARCH IN THE P. K. YONGE LABORATORY SCHOOL

V. A. Hines
The University of Florida

This article is a critical review of research activities and problems of the P. K. Yonge Laboratory School. It is hoped that this discussion of research and research problems will be valuable to the many schools that consider educational research as one of their functions. Such schools include the Florida High School in Tallahassee, the Nova School in Fort Lauderdale, and other schools throughout the state and nation. The critique might also be helpful to researchers in other schools since many of the research activities and problems discussed are not unique to laboratory-type schools. In addition, it is believed that the readers will be genuinely interested in the research programs and activities of P. K. Yonge because of the unique role it has played in educational research. It is hoped that this critique of the development of a school research program might provide a stimulus to researchers in other schools, some insight into the development of programs of their own, and some insight into the problems which they might encounter.

The P. K. Yonge Laboratory School has had research as one of its four functions since its founding in 1934. "Research" is used advisedly rather than "experimentation." As "experimentation" is often used in education, the term is attached to any innovation in method or curriculum which an individual or group cares to try, whether or not any careful record is kept of this innovation, or whether or not any comprehensive evaluation is done of the new departure. All too often these new departures have not had accurate records kept and exist briefly only in the minds of their creators.

Research Activities from 1934 to 1964

During the early years of the P. K. Yonge School, much curriculum experimentation went on. Fairly comprehensive curriculum records were kept of these innovations. The School also cooperated in child development studies with other groups in university schools during this period. Limited by single classes of 30 in kindergarten through eighth grade, and two sections of 30 in grades nine through twelve, possibilities of controlled experimentation were somewhat limited.

Despite the limited student body a number of researches were carried out, including several by doctoral students in the decade after World War II. Davis (5) conducted a comprehensive evaluation of the core program in grades nine and twelve, using as controls matching students from another school in the same town and attendance area, and found that the objectives of the core program seemed to be attained as well or better in a school program organized in conventional subjects. Hill (9) organized a number of five-weeks' units in high school core classes, grades 9, 10, 11, and 12, based upon Warner's (13) What You Should Know About Social Class. Each grade had one experimental and one control section. Hill tested whether or not attitudes would change toward self, others, social justice, democracy, and whether choice of friends might change.

During this same period test and other data from the Laboratory School were often used by College classes. One such study indicated that achievement was at or above expectation in most subjects through the tenth grade with the exception of arithmetic computation and spelling. Arithmetic computation was below expectation until eighth grade when a decisive climb occurred. Checking on the design of the school program indicated that certain arithmetic topics were deliberately deferred beyond grades where they were usually studied. However, spelling remained below expectation all through the 12 grades, and a study of the results led to some changes in procedures for teaching spelling.

Both the Laboratory School and the rest of the College of Education were housed in the same building. Rapid growth of the College plus post-war advances in school building design led to the construction of a new Laboratory School which was dedicated in 1958. The new school had two sections of 30 in kindergarten and in grades 1 through 6. Grades 7 through 12 each had three sections of 30. The buildings were spread over a rolling campus, designed to house a program, and with possibilities for controlled experimentation on all grade levels. As it had always been, the school was almost tuition-free; and studies of hidden tuition have indicated that it was at least as reasonable to attend as the non-university, public schools. University policy limited enrollments to 30 per cent children of university faculty, and not more than 10 per cent--part of the 30--children of College of Education faculty. Thus a fairly representative student body was available. The public schools also had kindergartens.

During the first year of operation of the new school, Wiles (14) prepared "A Plan for a Program of Research in the P. K. Yonge School."

A laboratory school should have a research program. Program is used deliberately because it can be inclusive of a number of studies and indicates planning. If the conception of the program is adequate, the research will test the major hypotheses underlying the school curriculum and include long term, longitudinal studies and short duration projects (14:1).

This document was studied by the College faculty during its 1959 preschool planning period. Included in this manuscript are sections on formulation of a research program, administration of the program, problems in conducting the research program, and cooperative research with other schools under the heading of "Formulating the Research Program," plus outlines of a ten-year program of research designed to test the hypotheses used in the operation of the school. Studies are suggested which might be part of the over-all design on the teachers' role, curriculum structure and improvement, teaching procedures, the guidance program, administration, and school-parent research committee, of the role of the P. K. Yonge teacher in research, and of purposes to be served by such research.

Immediately after this presentation, the following statement on research policy was adopted by the College faculty (this faculty includes the Laboratory School, a Department of the College.)

The P. K. Yonge Laboratory School provides a facility for research which had not been adequately utilized in the past. The broadest possible use of the school for research is desirable and should be encouraged. Because of the essential responsibilities of the school for providing the best possible program, procedures for screening and approval of research to be carried out in the school are necessary. Approval and priorities should be set up after consideration of the following factors:

1. Maintenance and protection of the integrity of children, teachers, and the school program.
2. Protection of essential teacher education functions.
3. The proposed research should be designed to give adequate results with economy of school time.

In order to insure that these policies are followed:

1. A screening committee of the Director of the Laboratory School, the Coordinator of Research for the College of Education, and two others whom they select shall review all proposals for research in the Laboratory School.

2. All proposals for research shall be submitted in writing in a form to be designated by the screening committee.
3. This committee will recommend either (1) acceptance of the proposal as submitted; (2) modifications which might make it acceptable; (3) rejection of the proposal.
4. The Director of the Laboratory School will retain final power to act on recommendations of the screening committee.

One of the first studies to be conducted was that of Reed (12) who had access to the Encyclopedia Britannica Films on Chemistry. One high school class was taught by conventional laboratory, demonstration, and discussion procedures; a second had the films in color four days a week. Careful comparisons indicated that the two groups were similar and gains were similar during the year for both groups. A follow-up on both groups about a year later, including most students, indicated surprising additional gains in knowledge of chemistry as measured by the Cooperative Achievement Test.

Another type of study, action research, was done by Davie and MacDonald (6, 6a). They attempted to learn which exploratory art activities appealed most to seventh and eighth grade adolescents in core classes, and what contributions these activities made to pupil's general education as viewed by the pupils, their teachers, and their parents.

One of the earlier studies fitting into the over-all research design was that of Land (10) who used a modification of a questionnaire developed in the Florida Kellogg Leadership Project to assess parent feelings about the P. K. Yonge School. In general parents indicated a high degree of satisfaction for what the school was doing. This helped faculty morale and balanced the criticisms of a vocal minority in the town as illustrated by the comment of one critic who, in response to the statement that the largest number of Phi Beta Kappas ever to come from one high school class at the University of Florida was from a class of about 50 from P. K. Yonge, asserted, "Yes, but think how much harder it was for them than if they had gone to a good school."

Further support for the practices of the school came from two sources. Hill (9) compared median scores on the senior placement tests--a statewide program for all high schools--including a psychological test, and Cooperative Achievement tests in language arts, social studies, mathematics, and science over the period from 1935 to 1957. Median scores were psychology 56, science 66, and mathematics 64, indicating that achievement was somewhat better over the years than would be predicted from the psychological scores.

Still another type of study available for a laboratory school is a follow-up of the college performance of some of its graduates. This is particularly useful when a high proportion of the college-bound graduates attend the parent institution. Courson (4) recently completed a study of 138 graduates between 1955 and 1959 who attended the University of Florida. It was possible to compare their senior placement scores with those of all entering students for those years and also to see how well they had done in selected general education courses required of all students. Although their psychological scores were slightly below those for all entering students, they made a slightly higher average in the comprehensive general education courses than did the student body as a whole.

The advent of U. S. Office of Education research grants and more recently Title VII grants for new media has opened up new possibilities for research in the Laboratory School. One of the latter was a pilot study for a larger project by Cate, Landsman, and Cunningham (1). These investigators trained a research team and tested techniques in a project designed to assess the influence on children's self-concepts of regular taking of still pictures of pupils as they went about the school day, and later using these pictures for conferences in which support was given for constructive or effective behavior by the child.

The most elaborate research thus far has been that of Combs and Soper (3) who started with 60 kindergarten children and studied them for two years attempting to see how they perceive themselves and their situations, and how their perceptions influence their behavior, achievement, and the perceptions teachers have of them. Further questions studied included (a) are changing perceptions of self and the world accompanied by changes in behavior and achievement and (b) can behavior and achievement be predicted from a knowledge of the child's perceptions of self and his world? Data were collected with projective tests, other tests, and observations and influences made from these about perceptions. Relations were studied among perceptions from tests, perceptions inferred from observations, perceptions inferred from comprehensive data, and behavioral data, as well as objective test results. Much of this data has been factor analyzed.

Besides studies involving children, the faculty have also been involved in a limited amount of research. Faculty have been observed in the studies of Davis (5) and of Lovell (11). Faculty have assisted doctoral students on occasions by completing questionnaires or tests. A good example of this was the use of the P. K. Yonge staff in a study by Duncan (7) when he was attempting to validate an instrument designed to test readiness for curriculum change which he had developed. More recently, teachers have cooperated with another study by Combs and Soper (2) by doing a Q-Sort on how they perceived the helping relationship of teachers.

Their sorting was closely parallel to the way psychologists and psychiatrists had done a similar Q-sort based upon their role with clients.

Problems Involved in Moving into a More Active Role in Experimentation

One of the more serious problems involved in more active participation in research is the 24-hour day. Teachers all have very full schedules--in the elementary school, this means a full day, often including the lunch hour. High school teachers usually have five periods of assigned responsibility. In addition to the expectation that they have a quality program for pupils, the school has several thousand observations every semester. Some of these observations require conferences with students in education, nursing, and medicine. In addition, there is a high degree of participation by students in elementary education, a somewhat more limited amount in the secondary school, plus some internship. Most teachers have three or four meetings a week. Many are taking college courses each semester. Hence the amount of time which they can give to research themselves is extremely limited. Yet from time to time teachers do produce research on their own, despite these heavy loads. Further, their heavy schedules make difficult or impossible their cooperation in very extensive data gathering done by others.

A second limitation in time is that of pupils. While parents have agreed that research may be done using their children as a condition of entering the school, it is still the policy to see that they not only not be exploited but also that any research done should not interfere with the educational functions of the school. Hence a condition often asked of proposed researchers is why can the research not be done equally well in some other school?

A third limitation is the time of other faculty members of the college who might like to carry on research. Teaching faculty must meet a student-semester-hour production called for by a formula based upon a report by Brumbaugh. This is roughly 360 student semester hours for lower division course, 250 for upper division work, and 120 for graduate work. Faculty must meet heavy demands, also, for committee work, extension teaching, and service activities such as school surveys and evaluations. Although some faculty time is assigned to assist graduate students and other faculty members with research, and some graduate students are available from a pool to assist with research, the University provides no formal support for research in the College.

Another limitation upon effective research is that faculty have almost always been hired for experience and competence in

teaching, and with very rare exceptions must have had public school experience before coming to the Laboratory School or other College departments. Hence only a few have been trained for research, are interested in research, or have the specialized competence so often needed for research today. Various attempts at in-service education of faculty for research have only very partially remedied this situation.

A related factor, partially compensated by the Cooperative Research Program, is that research today is expensive. While travel time and expense may be lessened by conducting research on the campus, it still takes large chunks of faculty time, usually well-trained advanced graduate students, secretarial help, a supply budget, and money for computer time.

Even the preparation of research proposals or designs can be extremely time consuming. One faculty member put in spare time for a year in developing, submitting, then redeveloping and resubmitting a research proposal which eventually brought a grant of over \$50,000 for a 2½-year study. It is just not possible to turn out research proposals like one might write newspaper articles. Hence, other things permitting, this makes seeking a research grant almost out of the reach of a full-time member of the Laboratory School faculty.

Another factor which must always be raised about research in a laboratory school is the extent to which research results are generalizable. Are pupils in a laboratory school samples of a different population from pupils in a public school? Strangely enough, the 1962 senior class at P. K. Yonge is more nearly like all pupils in Florida twelfth grades than are the 1962 seniors in the public high school--at least as likeness is measured by performance on the senior placement tests. Even granting some statistical likeness, may not their motivations be different since they usually come from families which put them on a waiting list, often several years before their first admission? To what extent can findings of research be attributed to what happens to them in school, and to what extent might differences be due to differences in family backgrounds as far as values and motivations are concerned?

Similarly, are not the faculties of laboratory schools different from many or even most other faculties? Sometimes high salaries may be a factor in recruitment, though this is not the case at P. K. Yonge. Sometimes the opportunity to attain university rank attracts and keeps high quality personnel. At the same time, when universities tend to use these positions in part as ways of high-level subsidies for doctoral candidates, does this not tend to promote faculties which are atypical?

Add to these other problems the one of inertia. Teachers often develop emotional commitments to particular programs, such as certain kinds of general education organizations, and they are reluctant to change these. First, they tend to drag their feet on possible research which might compare their practices with others, either more radical or more conventional. Second, they are often unwilling to act on results of careful research, even when it seems to be indicated that practices should change.

Perhaps some of the answers to these problems may be found in seeking kinds of research which do not depend upon having either typical populations or typical teachers. The laboratory school can provide a useful place to test new research methods. Where a 12- or 13-grade program is housed on a single campus and where there is a high degree of holding power, types of long-range studies are possible that do not occur often in other situations. Finally, as Wiles (14:13) suggests:

For many years now education has needed definite research concerning the results produced by a program of education built upon a defined body of principles....The University School of the University of Chicago, when John Dewey was director, and perhaps the Lincoln School, have been built on clearly stated principles but none has had the effect of the total program tested over a period of years. The research basis of our educational theory has been short-term, unrelated studies dealing with small segments of the total program from which educators have inferred a theory of education which they assume should be applied to the total education program. It is urgent that a research program be undertaken that ascertains the results of a total program.

References

1. Cate, Charles A., Landsman, Theodore, and Cunningham, Myron. "Effectiveness of Photographic Media in Modifying Teachers' Classroom Behavior, Attitudes, and Understanding of Children's Self-Concepts." U. S. Office of Education grant.
2. Combs, Arthur W. and Soper, D. W. "The Helping Relationship as seen by Teachers and Therapists." Journal of Consulting Psychology. In press.
3. Combs, Arthur W. and Soper, D. W. "The Relationship of Child Perceptions to Achievement and Behavior in the Early School Years." Cooperative Research Project No. 814. Washington: U. S. Office of Education, 1963. 187 p.
4. Courson, Clifford C. "The Core Program and College Achievement: P. K. Yonge Graduates at University of Florida." Florida Journal of Educational Research 6: 11-18; Jan. 1964.
5. Davis, Edward A. "The Core Curriculum in the P. K. Yonge Laboratory School: A Measurement and an Evaluation of its Effectiveness. . ." (Unpublished Ed.D. dissertation, University of Florida, 1956.)
6. Davis, Marian V. and MacDonald, Mary Francis. "Do Adolescents Like Art? Yes, if . . ." University of Florida, N.D.
- 6a. Davis, Marian V. and MacDonald, Mary Frank. "The Effectiveness of Art in the Junior High School General Education Program--An Action Research Project," Florida Journal of Educational Research, Vol. 3, No. 1, January, 1961.
7. Duncan, James K. "An Instrument for Measuring Readiness for Curriculum Change. . ." (Unpublished Ed.D. dissertation, University of Florida, 1954.)
8. Hill, T. J. "'Less' Math, Science? Look at the Record," Journal of the Florida Education Association, February, 1958, p. 15.
9. Hill, Thomas Jordan, "Experimental Study of Selected Instructional Material in Social Class at the Secondary Level . . ." (Unpublished Ed.D. dissertation, University of Florida, 1954.)
10. Land, Warren Alonzo. "Certain Parental Feelings Toward Selected Aspects of a University Laboratory School." (Unpublished Ed.D. dissertation, University of Florida, 1960.)

11. Lovell, John Thomas. "A Study of the Relationship between the Style of Teacher Participation in the Total Classroom Group and the Internal Structure of Subgroups in the Classroom." (Unpublished Ed.D. dissertation, University of Florida, 1954.)
12. Reed, William Smith. "Investigation of Use of a Completely Filmed Chemistry Course of High School Teaching." Dissertation in progress.
13. Warner, W. Lloyd and Warner, Mildred Hall. What You Should Know About Social Class. Chicago: Science Research Associates, Inc., 1953.
14. Wiles, Kimball. "A Plan for a Program of Research in the P. K. Yonge Laboratory School." The University of Florida. Mimeographed.