THE LONG RANGE EFFECTS OF 
A TITLE III CURRICULUM

An abstract of a Field Report by 
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August 1979 
Drake University 
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Questions to be Answered.

1. Is there any difference in the dropout rates evidenced at Highland Park and Butler Elementary Schools in Fort Dodge, Iowa, since 1972 when the Positive Experience Program (PEP) was instituted at Highland Park with Title III federal funds?

2. Did the PEP program produce any long-range changes in negative attitudes of the students who formerly attended Highland Park?

3. How did academic achievement by former Highland Park students compare to that by Butler students?

Dropout Rate. Seventeen percent of the original 53 members of the sixth grade at Highland Park had dropped out of school by 1979. Nineteen and one half percent of the 46 members of the sixth grade from the control school (Butler) had dropped out by the same time.

Positive Attitudes. Attitudes of the experimental (PEP) students were compared to attitudes of the control students by computing total scores on an attitude scale in an opinionnaire designed by the writer. Out of a possible total of 75 points, the experimental group had a mean score of 55.7 and the control group had a mean score of 56.4.

Student responses were also tabulated into "agree" and "disagree" responses in four subcategories on the attitude scale. There was no statistical difference between the group responses in any category. The experimental group did exhibit more positive attitudes in their responses than expected.

Academic Achievement. Twelfth grade ITED scores and sixth grade ITBS scores were obtained for 57 percent of both groups. The experimental group had a mean score of 51.2 on the ITBS and a mean of 49.4 on the ITED. The control group had a mean of 51.9 on the ITBS and a mean of 42.9 on the ITED. Neither group's difference was statistically significant. The academic data did indicate more growth shown by the experimental group than by the control.
Summary. The experimental group evidenced long-range changes making them very close to the control group in dropout rates, academic performance and positive expression. Although there was no significant differences between the groups, these changes would encourage future replication of the study for the following six years, until all of the students who participated in the PEP program have been evaluated in these three areas. The study will be continued.
THE LONG RANGE EFFECTS OF
A TITLE III CURRICULUM

A Field Report
Presented to
The School of Graduate Studies
Drake University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by
Bernita E. Stiles
August 1979
THE LONG RANGE EFFECTS OF
A TITLE III CURRICULUM

by
Bernita E. Stiles

Approved by Committee:

Chairperson

Dean of the School of Graduate Studies
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Chapter 1

PROBLEM

Would a Title III elementary program designed to encourage positive attitudes result in any long-term changes in students that could be determined by evaluating specific, verifiable data? Title III programs were federally funded programs operating under the Elementary and Secondary Education Act, ESEA. Specifically, Title III programs, now classified as Title IV-C, were innovative or exemplary programs.

Most evaluations of curricular programs are conducted at the end of a particular school year. This produces short term results of student progress or change during that particular year. To measure long-lasting results of a school program, more time must be allowed between implementation of the program and evaluation time.

In 1972 the federal government approved funds for a three-year Title III program for Highland Park Elementary School in Fort Dodge, Iowa, a K-6 Positive Experience Program (PEP). The program was based on the premise that short-range success leads to the achievement of long-range goals, builds positive self-image, and encourages healthy
interaction among individuals. The program was also developed in the belief that early recognition of problems leads to effective solutions, and that even deeply rooted negative habits and attitudes can be eliminated if the right methods are used.

Yearly evaluations of PEP were done, yearly revisions were made of the curriculum, and a final study was written for the federal government at the end of the three year program. Then the program was slowly assimilated into other newer curricular proposals. The faculty and coordinators of the Fort Dodge system had such personal involvement and commitment to the basic PEP philosophy that six years later there was still a deeply felt curiosity as to the long-range effectiveness of the program.

This question could be justified in a broader sense since most curricular programs are not evaluated as to long-range, long-lasting effects. If this study did prove that such long-lasting effects did happen it might provide guidelines for future research which would enhance educational planning, implementation and evaluation.

This study was designed to personally contact as many as possible of the former Highland Park students and to determine:

1. how many of these students were still in school.
2. how many were planning further education or training.
3. if these students expressed a positive attitude toward school in general, and toward specific PEP objectives in particular.

4. how many students developed into active, participatory students as opposed to passive, indifferent or negative students.

5. whether the data found above differed from that obtained from students who attended Butler Elementary School during the same years. Butler was designated a control school for statistical comparisons during the three year program at Highland Park.

If this study revealed that PEP had long-range results, this would have implications for future curricular modification and development, and might justify the feasibility of this kind of evaluation for other school programs. Since the high dropout rate and low academic performance of Highland Park students was the criteria used for participation in the PEP program, its effectiveness would be supported by finding a decrease in the dropout rate and increase in the level of academic performance.
Chapter 2

RELATED LITERATURE

Evaluation differs from basic research in its orientation to a specific program, rather than using variables common to many programs. Evaluation is usually defined as the appraisal of the extent to which objectives are obtained. Evaluation may also be defined as the gathering of information for the purpose of making decisions as Welch has done. Welch further differentiated between two classifications according to function: formative and summative evaluation.¹

Welch defined formative evaluation, which is equated with applied research, as that which obtains information used to improve a course. Summative evaluation was described as that which provides a basis for decisions about curriculum adoption and effective use of curricula. Scriven advocated using summative evaluation experiments to determine the relative effectiveness of new products.²


²Michael Scriven as cited by Wayne Welch, pp. 434-5.
This study was designed as evaluation of a curricular program, thus designated as summative evaluation.

Abramson viewed evaluation and research as basic fundamental parts of curriculum development, not merely appendages.\(^1\) An analysis by Guba differentiated between experimental design and the field study.\(^2\) Each method provided unique data and complemented the other. In field studies (such as this) he suggested:

1. a pragmatic approach
2. use of a logical framework
3. flexible relationship between investigator and the observed phenomena
4. replication of studies to build up accumulative evidence
5. use of quasi-experimental design where possible
6. study of techniques used in other fields for collection and interpretation of evidence
7. use of logical inference more than statistical inference
8. interpretation of "pathological findings" to gain new insights.

The suggestion of replication of studies seemed to indicate Guba might be referring to longitudinal studies of some sort. There is a difference of opinion among writers about the efficiency and feasibility of longitudinal research.


\(^2\)Guba (1965) as cited by David Abramson, pp. 388-90.
studies, some writers stoutly advocating such studies while others positively scoff at attempts to undertake this type of research.

Two serious problems of longitudinal studies were cited by Lazar: attrition and changes in the meaning of measures used.\(^1\) Ernest McDaniel further stated that nationally 5-10 percent of school children move from school districts during a year and mobility rates in inner-city schools run as high as 50 percent.\(^2\) Other researchers claimed that few good examples of such studies exist. One major difficulty is sustaining a sample (primarily because of attrition mentioned above). "The most common criticism is sampling," reported Joseph Fearing.\(^3\)

In a report on longitudinal research in the behavioral sciences John Nesselroade indicated that the bulk of recent developmental literature seemed bent on condemning

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the longitudinal method of research.¹ The most expressive condemnation of longitudinal methods was expressed by Ernest McDaniel,² "A longitudinal study is like a space shot—exceedingly expensive, requires exquisite planning and organization, carries a sharply limited payload and is entered into with fear and trembling."

However, McDaniel also impartially offered the opposing view of longitudinal studies by claiming that at the same time it is evident that the most pressing educational problems are more likely to yield to long-range, pragmatic research than to short-term status studies.³ Other writers like Larry Goulet claimed the superiority of longitudinal data over cross-sectional data remained unquestioned in educational and developmental research.⁴

In a discussion taped by Robert Lathrop, one participant strongly stated, "It may be that many of the treatments that we have tried and rejected in education as giving


²McDaniel, p. 1.


nonsignificant results are nonsignificant because they occurred over too short a span of time."¹

A professor of education at Columbia University stated, "The impact of longitudinal research in education has to do with determining the stability of data and the depths of impact with results of programs or procedures."² In a review of longitudinal studies Arthur Gerst noted that one item in much more need of attention in research is the evaluation of effects of specific programs.³

Harry Passow remarked, "Long-range longitudinal studies are rather rare (such as Terman, Bluecks, and Nancy Bayley)."⁴ Lewis Terman combined summative evaluation procedures and in-depth field studies in his long-range follow-up studies in The Gifted Group at Mid-Life.⁵ From 1921 to


⁴Harry Passow, p. 121.

1959 Professor Terman conducted three major field studies, several mail followup interviews, tested a large proportion of the group's offspring, and maintained such close, personal relationships with nearly 1500 members of the original group studied that 95 percent of them were still active research studies when Volume V, *The Gifted Group at Mid-Life*, was published after Terman's death.

The Terman studies are unique as they are the only research studies ever done that included such long-range followup studies. The procedures used would be helpful to any researcher planning a summative evaluation field study. Notice should be taken that in many of the followup interviews Terman researchers had to construct original tests and questionnaires to be sure of having valid data collection tools, e.g. the Concept Mastery Test.

Another summative type evaluation was described by John Rothney and Gail Farwell in 1960.¹ Investigators conducted a followup study that compared the effect of guidance on dropout rates. Criteria used to test the effectiveness of counseling included: (1) performance in college or educational undertaking, (2) persistence in school or post-school activities, (3) student grade point average, (4) evaluation by clients, (5) changes in goals or interests,

job satisfactions, optimism about the future, and specificity of choice of vocations. Many of these criteria were useful in designing this particular field study.

Other studies on evaluation of guidance services dealt with a before and after analysis. Few researchers in guidance have employed control group methods. As will be seen in the section "Description of Procedures" this study was fortunately able to utilize the existence of a control group in a summative evaluation field study.

In a review of longitudinal studies Arthur Gerst noted that one item in much more need of attention in research is the evaluation of effects of specific programs.1

Interestingly, background research for this study produced two evaluation field studies of other Title III programs. The latest and most comprehensive was the Rand Study conducted for the U.S. Office of Education in 1978.2 Another study was a long-range evaluation of a Title III program in Indianapolis, Indiana.3 Gary Phillips conducted a followup of "resistant" students and compared two groups five years after they graduated from North Central High

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1Gerst and Trent, p. 83.


school. The study indicated the program DID make a difference to students who were in the program two or more years. In justifying the evaluation, Phillips stated, "The hell-raisers are likely to remain in the local community and to marry and have children who also attend public schools. Schools thus have an incentive to adjust their programs to respond to these students' distinctive needs."

In 1978 when the Rand Corporation published its findings of a forty-six month study, the outcome seemed to indicate that the amount of funds did not affect student achievement as much as the quality and behavior of the local staff. In describing the study Mary Berry said, "Teachers ultimately decide the success or failure of almost any innovative classroom project and should make sure they are involved in structuring these projects."

In 1968 a survey of educational policy makers and researchers conducted by the National Center for Educational Statistics indicated that professional people want to know what makes the differences in education, and they want to know more about the psychological impact of schooling (attitudes, self-concept, personal and social development).

In recent years there has been a general movement emphasizing accountability in the schools for providing

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1Berry, p. 38.

2McDaniel, p. 2.
effective, high quality education. Obviously the main measure of the schools' effectiveness is the outcome of their students. As stated by Clare Rose, information about the effects of schools and their programs on student outcomes, however, is very limited.\(^1\) One accountability model has been widely used. This model was described as the "technological model" by Silliman and Silverstein.\(^2\) In this model behavioral objectives are used exclusively. Some educational researchers believe there could be another model used in accountability, one that is more descriptive and holistic, that would just describe achievements and weaknesses of programs.

A search of related literature seemed to indicate a controversy in the use of longitudinal research. Perhaps the conflicting views of researchers toward longitudinal studies might be explained by noting that advocates of the longitudinal method seemed to be in the behavioral and educational fields. While it is agreed such studies are rare, they do determine stability of data and the depths of impact of educational programs. Evaluation of such

\(^1\) Clare Rose et al., *An Analytical Review of Longitudinal and Related Studies as They Apply to the Evaluation Process*, U.S. Educational Resources Information Center, ERIC Document ED 079 847, June, 1972, p. 18.

programs seems to be a constantly changing process and with
the current emphasis on accountability in our schools,
perhaps a long-range evaluation field study could provide
accountability both for faculty and programs.
Chapter 3

DESIGN OF THE STUDY

This study was designed to answer the following questions:

1. Was there any difference in the dropout rates at Highland Park Elementary School and Butler Elementary School in Fort Dodge, Iowa, since 1972 when the Positive Experience Program (PEP) was instituted at Highland Park with the help of federal, Title III ESEA funds?

2. Did the PEP program have any other long-range positive effects in the attitudes of students who formerly attended Highland Park School?

3. How did academic achievement by former Highland Park PEP students compare to academic achievement by Butler students from corresponding classes?

Background Information

Although the Positive Experience Program (PEP) was designed for a particular school, Highland Park Elementary School in Fort Dodge, Iowa, it could be adapted to almost any elementary school. It was patterned to a degree after a business management plan:
1. The program and methods were focused upon developing the best possible "product".

2. The "tools" were adapted, created or purchased to fit the focus of the program.

3. Working conditions were planned to encourage individual incentive, positive group interaction, and good management-worker relationships. In business the product is the proof of the operation; in PEP the child was the proof.

PEP was a child-centered program. It was structured through cooperative teaching of common life-concepts so students would view education as a continuous process, preparing them for the unknown future. PEP was also flexible in that the teachers had freedom to adjust or change activities to meet the needs of students. Children often helped plan activities and set their own goals. PEP was a feeling and a philosophy as well as a program.

The curriculum itself was arranged around a framework of eight life concepts: Order, Patterns, Interaction, Conflict, Symbols, Change, Values and Continuity. These eight concepts were selected from approximately twenty suggested concepts, and according to research reports of such psychologists as Bloom, Bruner, Rogers, Jenkins and Piaget, the concepts chosen for PEP followed a logical sequence in the learning process. Further support for the sequencing came from organizational patterns of the SCIS Science Program.

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and the Ginn 36 reading program, both of which were used in PEP. Using the concepts as an "umbrella" to cover the three disciplines of social studies, science and language arts, learners were able to perceive how all of these subject areas had a common ground and how skills learned in one area might be used in another.

PEP might best be described as an attempt to create an educational program that would help the learner be more aware of what he was doing, why he was doing it, how he could do it most effectively, and where he could expect to be when he had completed a particular learning task. Much of PEP was designed to change negative student attitudes, and thus was affective in nature. Behavioral measurements were general at best. However, even attitudinal objectives were stated in behavioral terms so the teacher would be able to observe behavior that reflected outcomes of attitudinal change.

A steering committee composed of administrators of the Fort Dodge school system, community leaders and parents from the district was organized to approve and make suggestions related to the PEP program. Frequent, positive contacts were made with parents, including many informal coffees for small groups.

The original two hundred and forty page curriculum guide was developed in the summer of 1972 by a writing team composed of five elementary teachers, the librarian, Title I
reading teacher, principal of Highland Park, and three Fort Dodge coordinators (science, language arts and social studies). This researcher was a member of the original writing team.

The program was evaluated and rewritten in the summers of 1973 and 1974. In 1973 a cross-graded reading program for fifth and sixth graders was written under the eight life concepts of PEP, incorporating a reading laboratory for specific skill development or remediation. An elementary art program was also developed in 1975 around the PEP framework. Many other areas such as spelling, music, writing and library science reflected the basic philosophy and concepts of PEP during its three year duration.

Originally three elementary schools were chosen to participate in PEP, primarily on the basis of negative student attitudes evidenced at all three schools by high dropout rates, discipline problems, and below-level academic achievement. When federal funds were approved for only one school, Highland Park Elementary was designated the PEP school. Butler Elementary School of Fort Dodge was established as a control school. Although not one of the original schools chosen, in general Butler was quite similar to Highland Park in size of school population, family and neighborhood traits, socio-economic backgrounds, and was even adjacent to Highland Park boundaries in southeast Fort Dodge. It should be noted that Butler did not have the
high dropout or academic under-achiever problems that Highland Park did, and although it was homogeneous in other respects possibly it was a poor choice for the control school. One of the two schools that did have similar problems might have been a better choice.

**Procedures**

An opinionnaire was designed by the writer and distributed to all high school seniors who could be located, who had attended Highland Park Elementary School between the years of 1972 and 1975. (See Appendix A for Opinionnaire.) The same opinionnaire was distributed to students who had attended Butler Elementary School during the same years. Answers were compared as to positive attitudinal expressions and goals.

Attempts were made to contact all students from both schools who were no longer in school to analyze the reasons why they were not (e.g. moved to another district, married or dropped out). School records were examined to compare test scores and activities of the two groups. A comparison was made of the dropout rate at both schools during pre-PEP years. To date, only one class has been evaluated, but the study will be continued for seven successive years until a followup field study has been made of each class that was affected by PEP. The last group tested in 1985 would be the class that began kindergarten in the first year of PEP and
continued the curriculum for three successive years.

Lists were available which included parental names and addresses for most classes in the Fort Dodge schools. To recreate missing class lists, the Iowa Test of Basic Skills records in the Administration Building provided lists of students. Addresses were sought from siblings, friends, and former teachers.

The sixth grade class at Highland Park during the first year of PEP, 1972-73, graduated from high school in 1979 if the students were still in school and had proceeded at a normal rate. Many of the students were located by checking senior class lists at Fort Dodge Senior High and St. Edmonds Senior High in Fort Dodge, Iowa. Efforts were made to contact the remainder of the students by telephone or by letters to their last known residences. School records showed some transfers to other schools. These schools were able to supply current addresses for many of the transfer students.

Succeeding graduating classes will be contacted each year for a total of seven years. This contact will eventually provide dropout information about former students through grade twelve, and information about students who participated in the PEP program one or more years. The rest of the proposal is described as applying to the graduating class of 1979, with the understanding that the study will be replicated each year for seven years.
Once a student has been located, an opinionnaire was given to him or her (in person if possible, otherwise by mail) to determine current school status, employment status, amount of school participation, and attitudes toward school. This supplied general information about all students located. The opinionnaire was designed to be answered quickly and only needed a check mark placed in front of appropriate answers about school status, plans for next year and extra-curricular activities. Following this was a rating scale reflecting five stages from "strongly agree" to "strongly disagree" which was checked to indicate student attitudes toward fifteen general statements about elementary school, PEP concepts, positive thinking and problem solving.

More information was collected about the seniors from the following sources: Iowa Tests of Basic Skills from sixth grade were tabulated for both Highland Park and Butler students, twelfth grade Iowa Tests of Educational Development (ITED) scores were tabulated and compared to ITBS scores, dropout statistics of both classes were compiled from school records with the intent of comparing each school's dropout rate to its own dropout rate from a pre-PEP year.
Population and Sample

Experimental and control samples were compared. The experimental population consisted of all former elementary students qualified by age or residency to attend Highland Park Elementary School any full year during the years of 1972 through 1975. The control population consisted of all other former elementary students who attended any elementary school in Fort Dodge, Iowa except Highland Park, any full year during 1972 through 1975.

The sample chosen from the first population consisted of approximately fifty 1979 high school seniors who could be located who attended Highland Park School any year during 1972 to 1975. The control sample consisted of approximately forty 1979 high school seniors who attended Butler Elementary School any year during 1972-1975. It was fortunate and perhaps unique, that a control group had been designated during the years mentioned and was available for a long-range evaluation of the PEP program used at Highland Park.

Data and Instrumentation

Dropout figures consisted of percentages of known dropout students compared to the original number in the class in sixth grade. Percentages were computed for each class attending either Butler or Highland Park for the three years during the PEP program and for a previous class that
had attended either Butler or Highland Park one year before 1972. These figures were not computed until enough time had elapsed to permit individual students to achieve high school graduation status.

ITED (Iowa Tests of Educational Development) scores and ITBS (Iowa Tests of Basic Skills) for both the experimental and control groups were collected from school records. These scores were the only consistent academic indicators available for the majority of students.

General information was collected by a personally designed opinionnaire (see Appendix A). To validate it, this opinionnaire was examined by the present Highland Park principal, several of the original PEP teachers, the Fort Dodge Superintendent of schools and three Fort Dodge coordinators who helped develop the PEP curriculum. It was administered to seven high school seniors to determine the ease and speed of marking. It was then rewritten to ensure readability and face validity.
Chapter 4

ANALYSIS OF DATA

Dropout Rate

The percentage of known dropout students was calculated using the number of students in the elementary class during 1972-73 for both the experimental and the control groups. The experimental group (Highland Park) had nine (9) known dropouts from the original fifty-three (53) members of the sixth grade, for a total of 17 percent. The control group (Butler) had a total of nine (9) known dropouts from the original forty-six (46) members of the sixth grade for a total of 19.5 percent.

The writer was able to trace a little over 90 percent of the experimental group, and 89 percent of the control group. Of the original Highland Park class 74 percent are still in school compared to 70 percent of the Butler class who are still in school.

A similar comparison was planned of the dropout rates of Highland Park PEP participants and a prior Highland Park class (pre-PEP). Due to large attrition and the method of record keeping done at local schools this was not possible to do. However with the rate figured for the 1979
seniors, it will be possible to compare each succeeding graduating class to the 1979 class.

The dropout rate for the entire Fort Dodge school system for the years 1968, 1969, and 1970 was 5.5 percent, 7.4 percent and 6.9 percent for a mean rate of 6.6 percent. When an attempt was made to determine the dropout rate for a pre-PEP class at both schools, only three known dropouts were identified at Highland Park (7.3 percent) and four were found at Butler (9.5 percent). These figures cannot be taken as valid as 20 percent of the Highland Park class and 35 percent of the Butler class had transferred from the system and were untraceable.

During the 1970-71 school year the Fort Dodge School had eighty-three (83) dropouts. Table 1 compares the number of dropouts that formerly attended Highland Park and Butler Schools.

Table 1

Fort Dodge Community School Dropouts 1970-71

<table>
<thead>
<tr>
<th></th>
<th>Highland Park</th>
<th>Butler</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Sophomores (25)</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Juniors (31)</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Seniors (28)</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Total (83)</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>
The statistics shown in Table 1 would tend to support the claim that Highland Park was selected in part for participation in the PEP program because of its higher than average dropout rate.

Although both the experimental and control groups evidenced high dropout rates for the 1972-73 sixth grade class, and the difference seemed very slight (2.5 percent) it was promising to note that the experimental group from Highland Park did have a slightly lower percentage rate of dropouts than the group from Butler had.

**Academic Achievement**

Twelfth grade ITED scores and sixth grade ITBS scores were obtained for both the experimental PEP group from Highland Park and the control group from Butler. Fifty-seven percent of both groups had both scores available in Fort Dodge school records. The percentile scores were converted to Normal Curve Equivalents (NCEs) and a t-test was computed for the difference between the means of the two tests (for both groups).

Table 2 illustrates the Highland Park NCE scores for the ITED and the ITBS. On the ITED the thirty students had a mean score of 49.44 and on the ITBS the same students had a mean score of 51.2. The t ratio between the means was $-0.334754$ on 58 degrees of freedom which was not statistically significant at either the .01 or .05 level of significance.
Table 2

A Comparison of Twelfth-grade ITED and Sixth-grade ITBS Scores of Students from Highland Park Elementary School

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Mean</th>
<th>Variance</th>
<th>St. Dev.</th>
</tr>
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<tbody>
<tr>
<td>ITED</td>
<td>30</td>
<td>49.42</td>
<td>449.632</td>
<td>21.20</td>
</tr>
<tr>
<td>ITBS</td>
<td>30</td>
<td>51.18</td>
<td>379.626</td>
<td>19.48</td>
</tr>
</tbody>
</table>

-1.7599 | 27.6419 | 5.2575

t ratio: -0.3347 on 58 degrees of freedom

Table 3 gives the Butler NCE scores for the ITED and the ITBS. On the ITED the twenty-six students had a mean score of 42.9 and on the ITBS the same students showed a mean of 51.9. The t ratio between the means was -1.25684 which was not statistically significant at either the .01 or .05 level of significance.

Table 3

A Comparison of Twelfth-grade ITED and Sixth-grade ITBS Scores of Students from Butler Elementary School

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Mean</th>
<th>Variance</th>
<th>St. Dev.</th>
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<tr>
<td>ITED</td>
<td>26</td>
<td>42.88</td>
<td>782.223</td>
<td>27.96</td>
</tr>
<tr>
<td>ITBS</td>
<td>26</td>
<td>51.93</td>
<td>565.848</td>
<td>23.78</td>
</tr>
</tbody>
</table>

-9.05 | 51.8489 | 7.20

t ratio: -1.2568 on 50 degrees of freedom
It was anticipated that all computations done would indicate higher performance and growth by the Butler group, since the original approval for funding of the PEP program was based partly on the criteria that students were not living up to their academic potential as evidenced by scores on the ITBS. Indeed when means were examined for the entire sixth grade classes from Highland Park and Butler it was noted that in the year 1972-73 the Highland Park sixth grade class mean of the ITBS composite scores was 19 percent, while the corresponding mean for the Butler class was 47 percent. Although not statistically significant the data did indicate a trend in the hoped-for direction.

**Positive Attitudes**

Attitudes of the PEP experimental group were compared to those of the control group by computing scores on the fifteen-item attitude scale on the student opinionnaire. All statements on the opinionnaire were stated in such a way that positive attitudes were evidenced by higher scores. Each statement had answers rated on a 5-4-3-2-1 Likert Scale. Using these values total scores were computed for each student on the fifteen item opinionnaire. The Butler control group had a mean score of fifty-six (56). The range of scores was twenty-five (25) and the standard deviation of group scores was 6.7.

The Highland Park experimental group also had a
mean score of fifty-six (56) with a range of fifty-five (55) and a standard deviation of 9.3. One individual score in the experimental group affected the range and standard deviation to a great extent. This student checked all fifteen items "strongly disagree", making her total score fifteen. Without her score, the experimental class had a mean of fifty-seven (57) with a range of twenty-seven (27) and a standard deviation of 6.2, which shows more homogeneity to the control group figures. No computations were made for significance of difference on these scores since there was only one point difference.

Student responses were also tabulated into "agree", "indifferent", or "disagree" in each of four categories:

1. General attitude (all 15 items)
2. Attitudes toward school (items 1,3,6,7)
3. Attitudes toward PEP academic areas: science, social studies, language arts and reading (items 2,3,5,9,11,12)
4. Attitudes toward other PEP objectives: problem solving, concepts, positive thinking, long-range planning (items 10,11,12,13,14,15)

It was anticipated that the Highland Park students in the experimental group would give less-positive responses on the opinionnaire compared to the Butler control group unless the PEP program had had an effect on their original negative attitudes. Tables 4, 5, 6 and 7 summarize results of responses by the experimental and control groups in the four categories described above.
The Chi square formula was used to determine the significance level of the difference between the means of the scores from the experimental and control group in each of the four categories. Table 4 summarizes the responses to all fifteen items that indicate general attitudes.

Table 4
General Attitudes as Indicated by Responses to Total Opinionnaire Items

<table>
<thead>
<tr>
<th>School</th>
<th>Positive Responses</th>
<th>Indifferent Responses</th>
<th>Negative Responses</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler Elem. (control)</td>
<td>279</td>
<td>95</td>
<td>46</td>
<td>420</td>
</tr>
<tr>
<td>Highland Park (experimental)</td>
<td>348</td>
<td>108</td>
<td>69</td>
<td>525</td>
</tr>
</tbody>
</table>

Significance level is .5073.
Chi square critical value for 2 degrees of freedom

\[
\begin{array}{c|c}
0.01 & 5.99 \\ 0.05 & 9.21 \\
\end{array}
\]

Calculated Chi square value = 1.3761

*In Best, Appendix D, p. 371, "Abridged Table of Critical Values for Chi Square."

As stated previously the control group was expected to exhibit more positive attitudes than the experimental group. There was no statistically significant difference between the groups. The Highland Park experimental group did exhibit more positive responses than expected.

Table 5 summarizes the results of attitudes toward school as measured by the responses made to items (1) "I
remember elementary school with good feelings," (4) "I enjoyed junior high school very much," (6) "My past thirteen years in school have prepared me very well for the future," and (8) "My three years in high school have been good ones."

Table 5
Attitudes Toward School as Indicated by Responses to Selected Opinionnaire Items

<table>
<thead>
<tr>
<th>School</th>
<th>Positive Responses</th>
<th>Indifferent Responses</th>
<th>Negative Responses</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler Elem. (control)</td>
<td>78</td>
<td>21</td>
<td>13</td>
<td>112</td>
</tr>
<tr>
<td>Highland Park (experimental)</td>
<td>94</td>
<td>27</td>
<td>19</td>
<td>140</td>
</tr>
</tbody>
</table>

Significance level is .8771
Chi square critical value for 2 degrees of freedom:

\[
\begin{array}{c|c|c|c|c|c}
\text{Critical Value} & .01 & .05 & .10 & .20 & .50 \\
\hline
\text{Chi Square} & 5.99 & 9.21 & 13.82 & 20.72 & 36.63 \\
\end{array}
\]

Calculated Chi square value = .2554

*In Best, Appendix D, p. 371, "Abridged Table of Critical Values for Chi Square."

As in Table 4 it was anticipated that the experimental group would give less positive responses to the opinionnaire items than the Butler control group gave, unless PEP had had an effect on their negative attitudes. There was no significant difference between the means. The experimental group did exhibit more positive responses than expected.

Table 6 summarizes the responses to statements that reflected attitudes toward academic areas emphasized in the
PEP program: science, social studies, language arts and reading, problem solving and long-range planning. (See Appendix A for items 2, 3, 5, 9, 11, 12.)

Table 6

<table>
<thead>
<tr>
<th>School</th>
<th>Positive Responses</th>
<th>Indifferent Responses</th>
<th>Negative Responses</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler Elem. (control)</td>
<td>95</td>
<td>48</td>
<td>25</td>
<td>168</td>
</tr>
<tr>
<td>Highland Park (experimental)</td>
<td>118</td>
<td>52</td>
<td>40</td>
<td>210</td>
</tr>
</tbody>
</table>

Significance level is .5125

Chi square critical value for 2 degrees of freedom:

<table>
<thead>
<tr>
<th>.01</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.99</td>
<td>9.21</td>
</tr>
</tbody>
</table>

*Calculated Chi square value = 1.4564.

*In Best, Appendix D, p. 371, "Abridged Table of Critical Values for Chi Square."

There was no significant difference between responses given by the experimental and control groups. Therefore the experimental group did exhibit more positive attitudes than expected.

Table 7 summarizes the student responses to statements that reflected attitudes toward other PEP objectives (items 10, 11, 12, 13, 14, 15 on the opinionnaire) such as self-reliance, problem solving, long-range planning, positive thinking and one of the eight life-concepts, "Change."
Table 7
Attitudes Toward Other PEP Objectives as Indicated by Responses to Selected Opinionnaire Items

<table>
<thead>
<tr>
<th>School</th>
<th>Positive Responses</th>
<th>Indifferent Responses</th>
<th>Negative Responses</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butler Elem. (control)</td>
<td>130</td>
<td>28</td>
<td>10</td>
<td>168</td>
</tr>
<tr>
<td>Highland Park (experimental)</td>
<td>164</td>
<td>33</td>
<td>13</td>
<td>210</td>
</tr>
</tbody>
</table>

Significance level is .9593
Chi square critical value for 2 degrees of freedom:

\[

table
\]

*In Best, Appendix D, p. 371, "Abridged Table of Critical Values for Chi Square."

The experimental group was expected to give less positive responses to these items than the control group, primarily because these objectives were developed to meet felt needs in these areas by the experimental group. There was no significant difference between the means. The experimental group did exhibit more positive responses than was anticipated.

Other information on the student opinionnaires was tabulated to determine participation by students and their future plans. This was done with the possibility in mind that active, participatory students would be exhibiting behaviors that indicated positive attitudes. Two of the experimental group did not participate in any activities.
during secondary school years. The mean number of extra-curricular activities designated was 3.4 with junior and senior high activities being approximately equal in number. Three of the control group did not participate in any activities. The mean number of activities in the control group was three, with more students indicating activity participation in junior high than senior high school. No statistical comparisons were made, but it was again evident the experimental group was not inactive by this criterion.

Thirteen students (46 percent) of the control group were working part-time in high school. Eighteen (51 percent) of the experimental group were working part-time.

Future plans of both groups showed unexpected results:

<table>
<thead>
<tr>
<th></th>
<th>Plan full time work next year</th>
<th>Plan college next year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>5 (14%)</td>
<td>24 (68.6%)</td>
</tr>
<tr>
<td>(Highland Park)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control group</td>
<td>7 (25%)</td>
<td>13 (46%)</td>
</tr>
<tr>
<td>(Butler)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

More of the experimental group participated in extra-curricular activities in the secondary grades, worked part-time as seniors, and plan to attend college. All of these measureable changes could be concrete evidence of attitudinal changes which PEP was designed to affect.

PEP participants showed a lower dropout rate and higher academic achievement than the control group, and were
equally positive in their responses to the student opinionnaire. Although the changes in dropout rates, academic achievement and positive attitudes were not statistically significant, after testing both experimental and control group seniors for six more years, group comparisons may determine whether the indications of improvement seen in the 1979 Highland Park seniors remain consistent and whether students in the PEP program more than one year will show significantly more gains in these areas than the control group students.
Chapter 5

SUMMARY

This study was designed to evaluate the former students of Highland Park Elementary School who had participated in a Title III Positive Experience Program, six years after their exposure to PEP. The experimental population consisted of all former elementary students qualified by age or residency to attend Highland Park Elementary any full year during the years of 1972 through 1975. The sample chosen from this population consisted of approximately fifty 1979 high school seniors who could be located who had attended Highland Park during 1972-73.

The control population consisted of all other former elementary students who attended any other elementary school in Fort Dodge, Iowa, any full year during 1972 to 1975. The control sample consisted of approximately forty (40) 1979 high school seniors who had attended Butler Elementary School during 1972-73.

Questions to be Answered

1. Was there any difference in the dropout rates of students from Highland Park School and those from Butler Elementary School of Fort Dodge, Iowa, since 1972 when the PEP program was instituted at Highland Park?
2. Did the PEP program have any long-range, positive attitudinal changes on students who formerly attended Highland Park?

3. How did the academic achievement by former Highland Park PEP students compare to academic achievement by Butler students from corresponding classes?

**Dropout Rate**

Seventeen percent (9 students) of the original fifty-three members of the sixth grade class at Highland Park Elementary were definitely known to have dropped out of school by the spring of 1979, the year they normally would have graduated. Nineteen and one half percent of the forty-six members of the sixth grade class from Butler (9 students) were known to have dropped out of school by the same time.

**Positive Attitudes**

Attitudes of the experimental group (PEP students) were compared to attitudes of the control group by computing total scores for a fifteen-item attitude scale on the student opinionnaire. Out of a possible total of 75 points, the experimental group had a mean score of 55.7 and the control group had a mean score of 56.4.

Student responses were also tabulated into "agree" or "disagree" responses in each of four categories:

1. general attitude
2. attitudes toward school
3. attitudes toward PEP academic areas
4. attitudes toward other PEP objectives.
There was no statistical difference between the group responses in any of the four categories. The experimental group did exhibit more positive responses than expected.

**Academic Achievement**

Twelfth grade Iowa Tests of Educational Development scores (ITED) and sixth grade Iowa Tests of Basic Skills (ITBS) scores were obtained for fifty-seven percent of both the experimental and control groups. The experimental group had a mean score of 51.2 on the sixth grade ITBS and a mean score of 49.4 on the ITED. The difference between the means was not statistically significant. The control group had a mean score of 51.9 on the sixth grade ITBS and a mean of 42.9 on the ITED. This difference was not statistically significant.

Although significance was not shown, the academic data did indicate more growth shown by the experimental PEP group than by the control group. Although both sixth grade group scores averaged over 51, the formerly under-achieving experimental group averaged a higher ITED score by 7 points over the control group.

The experimental group evidenced long-range changes making them very close to the control group in dropout rates, academic performance and positive expression. Statistically there was no significant differences between the groups.
These changes would encourage future replication of this study for the following six years, until all of the students who participated in the PEP program have been evaluated in these three areas. The study will be continued.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. PERIODICALS


B. ERIC DOCUMENTS


C. BOOKS


APPENDIX
OPINIONNAIRE FOR FORMER BUTLER AND HIGHLAND PARK ELEMENTARY STUDENTS

Student Name ___________________________ Grade ___ Age ___

CURRENT STATUS: Place a check mark on the line before any statement that applies to you at the present time.

___ Student
___ Employed full time
___ Employed part time
___ Other _____________________________

PLANS FOR NEXT YEAR: Place a check mark on the line of any statement that applies to your current plans.

___ Finish high school
___ Iowa Central Community College (or other junior college)
___ Four year college at __________ (location)
___ Full time job
___ Armed service
___ Undecided
___ Other _____________________________

EXTRACURRICULAR ACTIVITIES: Check the line of any activity or activities in which you participated in junior and senior high school. (Extracurricular activities are non-credit activities.)

<table>
<thead>
<tr>
<th>Junior high school</th>
<th>Senior high school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental music</td>
<td></td>
</tr>
<tr>
<td>Vocal music</td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td></td>
</tr>
<tr>
<td>Annual or newspaper</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>Creative Writing Club</td>
<td></td>
</tr>
<tr>
<td>Camera Club</td>
<td></td>
</tr>
<tr>
<td>Debate</td>
<td></td>
</tr>
<tr>
<td>Cheerleading</td>
<td></td>
</tr>
<tr>
<td>Pep Club</td>
<td></td>
</tr>
<tr>
<td>Drama</td>
<td></td>
</tr>
<tr>
<td>United Nations</td>
<td></td>
</tr>
<tr>
<td>Other (please list below)</td>
<td></td>
</tr>
</tbody>
</table>
DIRECTIONS: Read each statement. When you have decided which response best reflects the way you feel, circle the corresponding letter with a pencil. Use the following key to make your responses.

If you strongly agree with the statement, mark A
If you agree with the statement, mark B
If you have no feelings about the statement, mark C
If you disagree with the statement, mark D
If you strongly disagree with the statement, mark E

Mark the one response which reflects your first reaction or feeling about the following statements.

SAMPLE: People are friendly to me.

* * * * * *

1. I remember elementary school with good feelings.

2. Science has usually been one of my favorite classes.

3. Things I learned in reading and language arts helped me in other subjects.

4. I enjoyed junior high school very much.

5. History, government and social studies classes are not just for playing around; I learned many valuable things in them.

6. My past thirteen years in school have prepared me very well for the future.

7. I don't have time to do everything I'd like to during the year.

8. My three years in high school have been good ones.

9. There is a clear relationship between the activities done in science classes and those in social studies classes.

10. I try to "think positive" most of the time.

11. I know how to solve most of my own problems.
12. I like to sit down and make out plans for what I would like to do next year.

13. My parents think I'm dependable.

14. Change is a necessary part of life.

15. I can change the world (a little bit).