This study was undertaken at Knox College (Galesburg, Illinois) to explore the effectiveness of one way of preparing in-service teachers in transformational grammar. The method involved two phases: (1) the training of four high school English teachers, in one school district, in transformational grammar, and (2) the production of a series of introductory lectures for all district English teachers of grades 7-12. Training in the first phase was intensive, involving outside reading and 10 two-hour sessions. At the end of the seminar, each teacher taught a unit in transformational grammar and was video-taped teaching part of the unit to one class. The second phase was made up of four one-hour lectures and was meant to provide only a very general picture of the material. Effectiveness of the program was measured by pre- and post-tests for seminar participants and by questionnaires distributed to all teachers attending the second-phase lectures. The intensive in-service education course was judged successful, but the lecture series, although beneficial, was considered generally inadequate. (Appendices include the test and reading list for the seminar.) (Author/LH)
An Experimental Study of the In-Service Preparation of Secondary School English Teachers in Transformational Grammar

Michael G. Crowell
Knox College
Galesburg, Illinois

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The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare, and to a subcontract with the Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers, University of Illinois, Urbana, Illinois. Contractors and subcontractors undertaking such projects under government sponsorship are encouraged to express freely their professional judgment in the conduct of the projects. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.
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Occasionally the real value or the particular significance of an investigation or research study does not lie in the results or the conclusions of a report. Rather, from time to time the importance of a study lies in the demonstration that a certain approach can be used effectively. The Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers (ISCPET), under the direction of myself as Director, Paul H. Jacobs, Associate Director, and Raymond D. Crisp, Research Associate, has several Special Research Studies which we believe to be exemplary in their adaptability to other situations.

The Executive Committee of the Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers believes that the ISCPET Special Research Study conducted at Knox College by Professor Michael G. Crowell warrants attention by the profession because of the ease and benefit with which such a project could be duplicated at other small colleges and universities as well as in school districts--wherever there is need for condensed in-service instruction in the newer grammars.

February, 1969
Urbana, Illinois

J. N. Hook
TABLE OF CONTENTS

FOREWORD .................................................. iii
I. INTRODUCTORY SUMMARY ........................... 1
II. INTRODUCTION TO THE STUDY ..................... 1
III. METHOD ................................................ 3
IV. RESULTS ............................................... 6
V. CONCLUSIONS .......................................... 9
VI. RECOMMENDATIONS ................................. 9
VII. SUMMARY ........................................... 10

APPENDIXES
A. COURSE PLAN FOR ISCPET SEMINAR IN TRANSFORMATIONAL GRAMMAR ........ 11
B. SCHEDULE OF LECTURES FOR UNIT SCHOOL DISTRICT NO. 205 TEACHERS ... 12
C. PRE- AND POST-TEST FOR SEMINAR IN TRANSFORMATIONAL GRAMMAR .......... 13
D. QUESTIONNAIRE ON ATTITUDES TOWARD TRANSFORMATIONAL GRAMMAR ....... 14
I. INTRODUCTORY SUMMARY

This study was undertaken to explore ways in which the in-service preparation of high school English teachers could best be implemented. The specific subject matter chosen was transformational grammar, since its relative newness, its seeming difficulty, and its technical language had made it appear out of the reach of most high school teachers. An entire high school and junior high school English department was to be introduced to the subject, but a two-stage plan was conceived in which a selected team of excellent and interested teachers was first taught the grammar in some depth. These teachers worked out curricula and taught the subject to selected classes. Later, they functioned as knowledgeable members of the school system who could advise their colleagues and administrators.

The second stage of the program was a series of four introductory lectures for all English teachers of grades 7-12, designed to acquaint them with the basic theoretical ideas behind structural grammars and transformational grammars. These lectures were not designed to discuss details; rather they were meant to prepare teachers to read with understanding new high school textbooks incorporating transformational grammars.

We found that such a plan would work, and feel that it can be offered as a model to be adapted by others to suit their specific needs.

II. INTRODUCTION TO THE STUDY

In the November 1965 issue of College English, the Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers (ISCPE) proposed a set of qualifications for secondary school
teachers of English.¹ One of the five areas of the statement concerned lan-
guage, and in this section it is recommended that the modern English teacher
know at least two systems of grammatical analysis. Many teacher-training in-
stitutions, both in Illinois and throughout the country, are adding courses
to train teachers to handle the newer grammars, but this does not solve the
problem of teachers whose undergraduate education occurred at a time when such
courses did not exist. Indeed transformational grammar, the newest and, it
would seem, most promising of the grammatical theories yet advanced, was known
to only a few scholars when the class of 1958 graduated from college. Clearly,
the welcome gain in course offerings will not help teachers already in the high
schools.

Summer institutes, summer schools, night schools for the few who
live near them and can find the time for them, and the kind of professionalism
that involves the reading of journals and other professional publications will
help these teachers. But not all teachers will be reached, and there will
still be a gap that only locally organized in-service programs can fill.

In the field of contemporary English linguistics the newness of the
material creates a special stumbling block to the orderly adoption of new cur-
ricular materials in secondary schools. In a recent article James R. Squire
draws a pessimistic picture of the situation created by the problems just out-
lined:

Many of the better high school English programs seem
to have abandoned any formal and systematic study of English
grammar. Unwilling to perpetuate the schoolroom grammar of
the past, unable to introduce transformational grammar
because of the limited background of the staff, most talk
furtively about "structural linguistics" and do little or
nothing. In no other basic aspect of English are we so
lacking in direction, so subject to the vagaries of a

¹J. N. Hook, "Qualifications of Secondary School Teachers of English: A Pre-
single textbook or a single specialist, so wanting in continuing education.  

Linguistics would seem, then, to be a field in which teacher training, especially in-service training, has not kept pace with recent scholarly developments. It is almost a cliche that the rate of change in our subject matter will continue to increase, and the result will be, if we do not explore ways of increasing in-service training, that teachers of English will soon find themselves possessors of carefully learned but badly obsolete information about their field. Continuing education, especially in the field of linguistics, would seem to be crucial to any English program that aimed at excellence.

Limiting our focus further, we see that transformational grammar presents a special problem. Tree diagrams, complicated formulae, and the often extremely difficult literature of the field scare the most confident and interested teachers. Yet many new high school texts incorporate transformational analysis. Teachers may soon have no choice but to face up to a district-wide adoption of a transformational grammar text. Thus, this study was undertaken to explore the problems that may exist when this situation arises.

III. METHOD

A discussion of the method used for this study can be divided into three parts: (1) construction and implementation of an educational program for the introduction of transformational grammar to teachers; (2) measurement of the effectiveness of this program; (3) production of video-tape materials for training teachers in transformational grammar.

---

The educational program was designed to produce gradual introduction of all high school English teachers in Community Unit School District No. 205, Galesburg, Illinois, to transformational grammar. This program was divided into two phases: a fairly intensive seminar in the grammar for four teachers who represented the one senior high school and two junior high schools of the cooperating school district, and a set of four introductory lectures for all secondary school teachers of English. The curricula for these two programs are set out in Appendix A and Appendix B. Although a few lectures were presented during the seminar, most of the time was spent in discussion of assigned readings and related matters. At its end, each of the teachers taught a unit in transformational grammar. The seminar met once a week for ten weeks and was conducted on a discussion basis with some introductory lecturing. At its end, each of the four teachers taught a four-week unit in transformational grammar in one of their classes. Reading assignments were made, and the teachers were paid a modest stipend for their involvement. The introductory lectures were formal in character and lasted for one hour each. They were held each week for four weeks in the afternoon right after school.

The rationale behind such a plan is simple. We felt that a trained core of interested and able teachers would have influence within their school system in the following ways: (a) they could serve as experts on important committees such as textbook adoption and curriculum committees; (b) they could stimulate the interest of their colleagues and supply information to those who wanted to know more; (c) having actually taught the new material in their classrooms, they could, by their example, bolster the confidence of those teachers who were nervous about trying new ideas.

The introductory lectures of the second phase were possible and desirable only after interest had been stimulated, and they in fact occurred in conjunction with the adoption of new textbooks containing transformational
They were designed not so much to provide detailed information about the new texts as to give teachers a theoretical background for reading any text incorporating transformational analysis. They were designed to convey a sense of what is going on today in the field of linguistics and its application to teaching.

(2) Measurement of the effectiveness of the program was accomplished by pre- and post-testing members of the seminars for subject matter comprehension and by circulation of a questionnaire to teachers who attended the four introductory lectures. These instruments appear as Appendixes C and D respectively. In addition, it was possible to assess the program subjectively by listening to suggestions of teachers, observing the teaching of seminar members, video-taping each of the four seminar members as they taught lessons in transformational grammar, and noting the practical effect of the program on school system policies.

The test given at the beginning and end of the seminar (Appendix C) was not elaborate, but was designed to measure both a teacher's knowledge of general theory and of a typical transformational grammar. It asked for short answers rather than a choice of alternatives, since ease of grading was not an important factor.

The questionnaire circulated to all English teachers after four introductory lectures was designed to measure the effectiveness of the goal of these lectures: the overcoming of apprehension and the preparation of teachers to teach themselves the details of the grammar. Hence it asked them to assess their own attitudes as they saw them before and after the lectures. It also sought their reaction to the length of the lecture series.

(3) Video-taping of four class sessions, one for each teacher in the seminar, was carried on with the idea of developing tapes for future use in teacher training. These were later edited to produce a one-hour program.
IV. RESULTS

In general, we found that a model such as ours worked fairly well, and that although there were problems and difficulties, and we would recommend some changes, results can be achieved in this way. We found, for example, that a ten-week seminar did teach the selected teachers enough about transformational grammar to enable them to teach and serve as "experts." The four-lecture second phase helped some but should, in the opinion of most teachers involved, have been longer.

All four teachers in the initial seminar were unable to answer my questions on the pre-test given when the seminar first met. They knew nothing, in short, about transformational grammar. The test was administered again at the end of the ten week seminar period and produced these results: on a basis of 100 points, with a score of 70 representing adequate knowledge of the subject in the opinion of the instructor, the scores received were 90, 86, 85, 42. Thus three of the four teachers had a good knowledge of the topic at the end of the period. Furthermore, the same three teachers reported that they found teaching a unit on transformational grammar quite possible at the end of the seminar.

But the seminar did encounter some difficulties in its operation. First, there was the simple problem of time. It is a great deal to ask of busy teachers that they attend afternoon seminars and do even moderate reading assignments. Our teachers were tired and pressed for time, as is any good teacher during the school year. Released time for the four teachers might have produced better results. Second, there was a period of discouragement on the part of members of the seminar. Because only a limited time was available,
it was hard to cover the difficult material of the course, and there was a feeling that the pace was too fast. In response to this reaction, reading assignments were made somewhat lighter than originally planned (Appendix A is the final revised schedule), and some parts of the reading were suggested for careful study, other parts for skimming. This change produced a welcome reduction of tension. The third problem was related to the second; it became obvious that the reading materials and seminar discussions were too detailed. Encountering a difficulty that tended to characterize early presentations of transformational grammar, seminar members sometimes had trouble cutting across the rules and diagrams to a general understanding of the theory behind the rules. Both learning and morale improved when we brushed past relatively trivial details and went to the heart of the subject.

But in spite of these problems, two of the four teachers served on a special curriculum study committee of three persons during the following summer and three of the seminar members were members of a larger, continuing English curriculum committee that met over a period of a year. They were able to answer questions about transformational grammar, and in the end may have been one of the reasons that the district adopted transformational texts. The seminar produced important practical results.

After the adoption had been made, the four introductory lectures were given to all English teachers in the district on a voluntary basis. Since the aim of these lectures was to instill confidence rather than to make teachers experts in the field, the questionnaire (Appendix D) was circulated to measure change in attitude on the part of the teachers as a result of the lectures. In general, we found that although many teachers experienced a boost in confidence and that therefore the lectures were not a waste of time, they proved to be too little even by way of introduction. Teachers ended up still apprehensive and almost unanimously recommended more time for this phase.
There was, however, a noticeable though slight difference in attitudes of teachers before and after the lectures. Six of the sixteen who responded reported becoming less apprehensive about teaching the grammars than at the beginning of the program; four acknowledged increased interest in the subject (and one felt a loss of interest). When asked whether they felt transformational grammar would improve the teaching of English grammar, a number responded affirmatively. Of the sixteen, nine reported no change in attitude, and two didn't answer. Five, however, indicated that after the lectures they felt more certain that transformational grammar would be an improvement in teaching English grammar. Five of the teachers reported that their reaction to the district's recent adoption of a transformational text had become more favorable as a result of the lectures.

When asked how much they felt they had learned in the four lectures, response was encouraging. Of the eleven indicating increased knowledge, three thought they had gone from knowing nothing to a slight idea of the subject, two from nothing to enough knowledge to read a text in the grammar, five from a slight idea to enough to read a new text, and one from ability to read a text to enough knowledge to teach the grammar. It is clear, then, that the four lectures did increase the competence of the teachers attending.

Only two teachers felt the time allotted was sufficient. Most wanted more, and suggestions ranged from five hours (only one more session than was actually provided) up to twenty hours. Clearly a longer program would have been desirable.

One video-tape to be used for the training of teachers in transformational grammar was prepared. This tape was put together from roughly four hours of classroom and studio taping and was designed to introduce teachers to actual classroom techniques that may prove valuable in teaching transformational grammar. Problems of technique and taping are the subject of
another Special Research Study conducted by Dr. Carl Eisemann at Knox College for the Illinois State-Wide Curriculum Study Center in the Preparation of Secondary School English Teachers.

V. CONCLUSIONS

On the basis of subjective data obtained in this study, an in-service course in transformational grammar has proven to be beneficial and practical. Because of the small number of teachers involved in the study, no statistical analyses were performed on the test scores. However, informal analyses, comments, and responses to the evaluative questionnaire indicated significant gains in knowledge of the subject on the part of the participating teachers.

VI. RECOMMENDATIONS

In the light of the explosion of opinion and knowledge about English, it would seem that the teacher will have to continue his training and education until he retires, if he is to come at all close to keeping up with what is going on in his field. New approaches to literature, new findings and methods in linguistics, new techniques and even goals in the classroom will present themselves for his acceptance and implementation. In-service preparation of teachers must grow if American education is to grow. The model for in-service education tried out in this study is adaptable to this enterprise and can be used by school districts who wish to prepare teachers for new adoptions and for the use of various innovative methods. The small core of specially trained teachers can be useful in proposing and implementing change and in trying out new methods in their classrooms.

More specifically, we can recommend the small seminar of a few key teachers as a way of beginning the process of general teacher enrichment in a
school district. We must say, however, that for transformational grammar, a four-lecture introductory program is generally inadequate in spite of a small but beneficial effect. Obviously other subjects will require longer or shorter periods of time.

There is a need for a great deal of research in in-service training. We can no longer be content to ask our teachers to lean on their college and graduate education for the full period of a forty-year career. We must find and test ways to help them continue their education during all of their working life.

VII. SUMMARY

This study was undertaken to explore the effectiveness of one way of preparing in-service teachers in transformational grammar. The method involved two phases: (1) the training of a small core of high school English teachers in a school district in transformational grammar; and (2) a series of four introductory lectures for all district teachers. Training in the first phase was intensive, and involved outside readings and ten two-hour sessions. At the end of the seminar, each teacher taught a unit in transformational grammar and was video-taped teaching part of the unit to one class. Participating teachers received a modest stipend. The second phase was made up of four lectures lasting one hour each, and was meant to provide only a very general picture of the material. Effectiveness of the program was measured by pre- and post-tests for seminar participants and by questionnaires distributed to all teachers attending the lectures of the second phase. Although some modification is recommended, the general plan was found to be successful.
APPENDIX A

Course Plan for ISCPET Seminar in Transformational Grammar

1. Background and Theory.

2. Rules and Diagrams.
   **Reading:** Owen Thomas, *Transformational Grammar and the Teacher of English,* Chapters I and II.

3. Morphemes and a More Elaborate Grammar.
   **Reading:** Thomas, Chapter III.

4. Nominals I.
   **Reading:** Thomas, Chapter IV, pp. 74-93.

5. Nominals II.
   **Reading:** Thomas, Chapter IV, pp. 93-115.

6. Verbs.
   **Reading:** Thomas, Chapter V.

   **Reading:** Thomas, Chapter VI.

8. Major Transformations.
   **Reading:** Thomas, Chapter VII.

   **Reading:** L. M. Myers, "Two Approaches to Language," in Harold B. Allen, ed., *Applied English Linguistics.*

10. Applications: Will Transformational Grammar be an Improvement?
    **Reading:** Bateman and Zidonis, *The Effect of a Study of Transformational Grammar on the Writing of Ninth and Tenth Graders.*
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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| April 29, 1968 | -Introduction: What has been going on in grammar?  
                        What is transformational grammar?  How does it differ from traditional and structural grammar? |
| May 7, 1968   | -Deep structure and surface structure:  What is a tree diagram?  How does it work?  
                                        What is the role of transformations?  How do they work? |
| May 14, 1968  | -The noun phrase:  What are noun features?  What goes into a noun phrase?  
                        What transformations affect the noun phrase? |
| May 21, 1968  | -Teaching transformational grammar:  What are the values and difficulties of transformational grammar?  
                                        How does it work in the classroom?  How may students react?  
                                        How should it be put to them?  Why study grammar? |
APPENDIX C

Pre- and Post-Test for Seminar in Transformational Grammar

A. Answer in one or two sentences each.

1) Using the attached grammar, explain the function of rule PS 6.
2) Explain the function of rule T 5.
3) Explain the function of rule T 7.
4) What classification of verbs lies behind rule PS 4?
5) Why does rule T 1 (Passive transformation) come before T 2?
6) Explain the reason for rule PS 5.
7) What is a PS rule?
8) A T rule?
9) What do the braces \{-\} in PS 3 mean?
10) Why does PS 5 give the choice that it does?

B. 1) Derive the sentence, "The cat scratched the monster," using the grammar given.
2) Draw a tree diagram of the deep structure of the sentence.

C. 1) Define "deep structure."
2) Define "generative grammar."
3) Describe the over-all form of a transformational grammar of English.

*A simplified set of rules, phrase structure and transformational, was attached to the test.*
APPENDIX D

Questionnaire on Attitudes toward Transformational Grammar

ISCPET (Project English)

1968

1. Grade level you teach.

2. Knowledge of transformational grammar before these workshops.
   Knew nothing about it.
   Had read a little about it.
   Had studied it carefully.

3-7 The purpose of these questions is to give you a chance to record change of attitude, if any, from before to after the workshops.

3. What is/was your reaction to the prospect of teaching transformational grammar?

   Before   After
   Apprehensive
   Somewhat apprehensive
   Not worried

4. Same as (3).

   Eager
   Interested
   Slightly interested
   Not interested

5. Do/did you feel that transformational grammar will improve the teaching of English grammar?

   Definitely improve
   May improve
   Probably won't improve
   Definitely won't improve

6. How much do you feel you know/knew about transformational grammar?

   Enough to teach it
   Enough to read a new textbook
   A slight idea of what it is
   Nothing

7. How do/did you feel about the adoption of TG textbooks in this district?

   Glad
   Fairly glad
   Neutral
   Fairly unhappy
   Unhappy

8. How many hours would you suggest for introductory workshops?

-14-