

THE LEARNING CONTRACT: A MEANS OF IMPROVING STUDENT COMPREHENSION IN THE STUDY OF LITERATURE

George Kallingal

CONTEXT OF THE PROBLEM

Certain basic weaknesses seem to be inherent in the traditional approaches to education. Among these shortcomings are the widespread failure to provide for individual differences, and the common failure to recognize the importance of choice in the classroom.

Concern for these problems is certainly not new. Efforts to adapt education to individual needs began as early as the last decades of the nineteenth century¹. In 1925 the National Society for the Study of Education met to consider the issue of complete individualization of instruction. A.A. Sutherland expressed concern that under the instruction system the abilities of brighter students would not be evoked by the easy tasks. At the same time, he feared that the abilities of less capable students would be further blunted by tasks that were too difficult for them. Sutherland pointed out that vast individual differences "make any form of mass instruction inadequate to meet the needs and abilities of the children. Children need differing amounts of time and of drill and different children need different methods"².

Maslow and other humanists have stressed the importance of giving students opportunities to make choices and decisions. Proponents of open education and alternative schools emphasize the ability to make decisions as a vital concern in today's society.

They believe the best preparation for decision making is making decisions. Yet the traditional classroom does not provide for such needs. In Flanders' **Interaction Analysis in the Classroom**, studies reveal that typical American teachers spend two-thirds of the time in the classroom talking — mostly lecturing, giving directions, or criticizing. Of the remaining one-third, about thirteen percent is quiet time.³ Pflum and Waterman (**Open Education — For me?**) claim that teachers often make decisions for their students with full realization that the students are quite capable of deciding for themselves.⁴ The irony of the situation is pointed out by Smith, Barr, and Burke (**Alternatives in Education**), who state, "Outside the classroom, young people exercise considerable self-determination and are involved in life-shaping decisions; inside the school they are expected to obey".⁵ Pflum and Waterman also

describe a rather unfortunate, yet typical, classroom setting in which the teacher decides how long students may have to complete a worksheet. When most of the class finishes before the time is up, they are given the "choice" of waiting quietly until the others are finished. In addition, the teacher makes decisions for students in terms of tasks. For instance, each child must complete the whole page whether he needs it or not. The authors suggest that if teachers begin early in the child's life to provide opportunities for choice, the child will find it easier to develop carefully calculated decisions as a part of his life style.⁶

Another valid argument for freedom of choice is presented by Smith, Barr, and Burke, who argue, "The higher the level of positive feeling, the better the performance. If people have a voice in how, where, what, and when they are ... learning, their attitudes will be more positive..."⁷

Even though educators have long recognized the need for individualized instruction, the great majority of our schools continue to use the traditional approach which results in uniformity. According to E.H. White, "All children are viewed as having similar, if not identical, abilities, interests, and aptitudes". He further states that another implicit feature in the traditional system is the conviction that all children must learn the same content. White believes that because all children are not alike, this position is educationally indefensible.⁸

A possible solution to the problem of providing for both individual differences and freedom of choice is the contract plan. A contract is simply a mutual agreement between student and teacher. It specifies a given amount and kind of work to be completed within a certain time limit. Alternatives are provided designed to meet each student's individual needs and to allow the student some freedom of choice.

Contracts have been used successfully in a variety of situations and grade levels. Barbour and Czarnecki describe the use of the contract plan with fourth, fifth, and sixth graders at Sunset Elementary School in the U.S. They found that contracting promotes more sophisticated use of dialogue due to the frequent personal level of communication between student and teacher. In addition, they claim that contracting fosters self-direction, improves work and study habits, and builds student independence. They believe that the traditional approach, on the other hand, cultivates dependency in the students because the teacher makes all the decisions.

Contract plans have also been implemented successfully at the university level. Susan Witting describes the success of diagnostic testing, contracts, and computer-assisted instruction in an experimental freshman English course at the University of Texas. She points out two advantages of the contract

plan. First, it helps less well-prepared students who would normally be at a disadvantage competing with other students in a traditional class. Also, the contract plan minimizes hostility because the student feels he is being treated as an individual, the course is relevant to his needs, and the teacher is personally interested in his improvement. Course evaluations by students indicate that even those students who were hostile at first and expected to do poorly were pleased with their progress in the experimental course.¹⁰

Theodore A. Chandler employed the contract approach in a graduate educational psychology course at Kent State University. Although he found that the contract method seemed to be no more effective than other methods in attaining certain goals, the options "did appear to unleash a few students, and for that reason alone may be justified."¹¹

R. M. Barlow, who used the contract approach in teaching an undergraduate philosophy course at the University of Wisconsin, reports that students under the contract plan develop higher levels of academic responsibility and achievement and take more pride in their accomplishments. In addition, they improve their ability to articulate their views, use more imaginative, non-traditional resources, and experience a better rapport with instructor.¹²

These positive appraisals of contracting are based largely on the personal observations and feelings of the teachers. Some of the teachers also took into consideration their students' own evaluations of the contract plan. Conclusions based upon feelings rather than scientific analysis of data do not prove much of anything. Certainly such conclusions would be subject to experimenter bias effect. Therefore, a need exists for a more objective, scientific study of the effectiveness of the contract plan as opposed to the traditional approach. With this need in mind, this research was initiated to compare the effectiveness of the contract plan as opposed to an approach that does not employ the contract plan in accomplishing the objectives of a literature course at the Junior High level in Guam.

HYPOTHESIS

The following hypothesis was formulated: The use of learning contracts will significantly improve student comprehension in the study of literature at the Junior High level.

For the purpose of this study, the contract specifically consisted of a printed form which was completed by the student and signed both by the student and teacher following a student-teacher conference. (See Appendix) The student chose a grade (A,B, or C) as his goal, and he agreed to complete certain activities and assignments within a given time frame in order to earn that

grade. The student could either choose activities from a list provided by the teacher, or he could suggest his own alternatives, subject to teacher approval.

All students had to complete certain assignments, regardless of what grade they contracted for. The higher the grade, the greater were the requirements for fulfilling the contract.

Comprehension is here defined as student's ability to read prose literature, particularly the novel, and answer correctly questions relating to the context of the novel. Such answers required an understanding of both explicit and implicit information in the novel that the students read. The test included multiple choice, matching and completion items.

It was assumed that students who did not sign a contract would be less motivated to learn than those students who did. The assumption was based on several factors. For one thing, these students were thought to have more positive attitudes toward learning since they were allowed some choice in deciding what they wanted to do. It was also assumed that they would make a stronger commitment to a decision which was entirely their own. For another thing, the activities provided for a wide range of abilities and interests.

METHODOLOGY

Design

The non-equivalent, pre-test post-test design was used for this study.

Group 1	Pre-test	Experimental Treatment	Post-test
Group 2	Pre-test	Control	Post-test

In an effort to establish that students in both groups have basically the same comprehension skills, a pre-test was administered to all the students. At the close of the experiment, which lasted for six weeks, both groups were tested in their comprehension of literature. Differences between the two groups were identified and tested for significance. Efforts were also made to match the groups in age and ethnic background distributions.

Subjects

Two English language classes were selected from one of the Junior High Schools of Guam. The selection was not done randomly, but rather based on availability. The experimental group was made up of ten boys and sixteen girls. The ages ranged from fourteen to sixteen. Ethnically, the group was made up of fourteen Chamorros, ten Filipinos, one Statesides (Caucasian), and one Hawaiian. The control group included eleven boys and fifteen girls. The ages in the second group also ranged from fourteen to sixteen years, and the numbers in each age group perfectly matched the first group. Ethnically, the control group consisted of sixteen Chamorros, four Filipinos, five Statesiders (Caucasian), and one Paluan. The mean pretest grade equivalent scores were 8.9 and 9.1 for the experimental and control groups respectively.

Tests

The widely used Gates-MacGinitie Reading Test (comprehension portion only, Level D, Form 1) was used for the purposes of pre-testing and establishing that the two groups were approximately equivalent in levels of reading comprehension. These tests were administered two weeks before the actual treatment began. Level D is intended for grades four through six. Because of the cultural backgrounds and bilingual nature of many of the subjects, it was assumed that the lower level of the test would be more appropriate. This test basically measures student's ability to read prose passages with understanding. It contains sixteen passages of varying lengths and a total of forty-three multiple choice questions about these passages. Out-of-level norms are provided, and these were used to obtain grade equivalent scores for the purpose of the study. Reported reliability co-efficients are high. Although the test designer has gone to great lengths to assure validity for use in American schools, obviously it was not designed with the Guam students in mind. Therefore, the results would have to be interpreted cautiously. However, for the purposes of this study, the test should be adequate to establish that the two groups did begin at approximately equal levels of reading comprehension.

The post-test was a teacher-designed test to determine the students' comprehension of prose literature, especially the novel. It consisted of fifty items, thirty-five of which were multiple choice. The remainder of the test included six matching questions and nine completion questions. Answers required an understanding of both explicit and implicit information from the novel that students read. Scores were based on a one-hundred point scale, with each item worth two points.

In constructing these items, a table of specifications was made in an effort to ensure that these items represented the population of the content taught to the students. This was done to make sure that the test had some degree of

content validity. Every segment of the content was represented in the test, in proportion to its importance to the whole novel as judged by the teacher.

As a further check on student comprehension during the course of the experiment, a ten-question check-test was given as each chapter of the novel was completed. These tests were given orally. The check test was also based on a one-hundred point scale, with each item valued at ten points.

Treatment

Basically, the only difference in the treatment of the two groups was the use of the contract with the experimental class. On the first day, a contract booklet was issued to each student in the experimental group and explained to him what the contract plan involved. The booklet included a calendar of study, as well as lists of alternatives, activities and assignments for grades of A, B, or C. After students had the opportunity to go through the booklet, each student was called by the teacher to discuss plans and sign a contract.

The control group followed the same format as the experimental class, except for the exclusion of the contract. On the first day, students in the control group were given a list of required assignments and activities to be completed during the course of the study. They were not asked to make any decisions regarding the grade they hope to earn and they did not sign a contract.

During the course of the experiment, both classes read the novel, **Lillies of the Field**. The first chapter was read to the class orally by the teacher. All the remaining chapters were either read silently in class or assigned as out-of-class reading. Each chapter was followed by a comprehension check-test and class discussion. Certain days were allotted for individual or group work on chosen activities and required assignments. This activity was basically directed by students in both groups. Students were allowed more freedom than usual to move about the room and consult one other.

Both classes were taught by the same teacher in the same manner. The teacher made use of several instructional strategies in order to motivate the students to learn. Included were such activities as writing character sketches, writing descriptive and expository paragraphs and defining of words selected from the novel; verbal activities such as telling a legend to the class, adding an ending to a story based on student's imagination, and reciting parts of the story memorized by the student; demonstration activities such as role-playing of a character in the story, and staging a scene from the novel were also included. Other project activities included decorating the folder cover in a way appropriate to the story, drawing pictures depicting scenes in the story and preparing a cassette recording based on parts of the story. In this way, students were given a variety of academic experiences in literature.

All assignments and activities were due on the same day for both the experimental and control classes. At the end of each unit, both classes had a review and the comprehension check-test and discussion.

Data Analysis

A comparison of the mean post-test scores revealed that the experimental group did better than the control group. The mean post-test score was 90.15 for the group using the contract plan. For the control group, the mean post-test score was 80.38. The mean check-test score was also better for the experimental group, although the differences were not as great. For the experimental group, the mean test score was 87.31, as compared to 80.62 for the control group. However, these scores were not used for testing the hypothesis.

The results are reported below:

TABLE I
PRE-TEST AND POST-TEST RESULTS

	PRETEST (Grade Equiv.)	CHECK-TESTS	POSTTEST
EXPERIMENTAL GROUP (N = 26)	M = 8.9	87.31	M = 90.15 SD = 7.73
CONTROL GROUP (N = 26)	M = 9.1	80.62	M = 80.38 SD = 11.4

In view of the size of the sample t-tests were used for testing the significance of the differences between the two means. The results indicate the differences to be significant at .01 level ($t = 3.69$). It can therefore be concluded that the contract plan did indeed bring about a significant improvement in comprehension of literature at the Junior High level. In view of the genuine efforts made to control extraneous variables, and to establish equivalency of groups, it can be safely inferred that the differences were indeed brought about by the contract plan.

Conclusion

The results of this investigation support the hypothesis that the contract plan has significant advantages over the non-contract approach in teaching literature at the Junior High level. At a time when teachers are looking for new

approaches to enhance student achievement, this study does provide suggestions for improving classroom instructional procedures. These groups are similar to other classes at the Junior High school, at least in the composition of the student body in the classroom and in other student variables related to learning. Therefore, it can also be inferred that the contract plan should bring about significant improvement in student achievement in other classes as well.

It might also be pointed out that the variable of teacher commitment did not appear to be a factor that contributed to the changes effected. When the research was undertaken a deliberate effort was made to select a teacher who did not have any particular preference for the contract plan. A teacher who was willing to experiment on instructional procedures was selected to do the teaching. Efforts were devoted to preparing the teacher in such a way as to ensure that the teacher repetition behaviour did not differ in the two classes.

FOOTNOTES

1. Chester W. Harris, ed., **Encyclopedia of Educational Research** (New York: MacMillan, 1960), p. 222, cited by E.H. White, "Contracts," **Man/Society/Technology** 35 (November 1975): 46.
2. A.A. Sutherland, "Factors Causing Maladjustment of Schools to Individuals," Section I in **The Twenty-Fourth Yearbook of the National Society for the Study of Education, Part II**, Guy M. Whipple, ed. (Bloomington, Illinois: Public School Publishing Company, 1936), pp. 18-29.
3. Ned A. Flanders, **Interaction Analysis in the Classroom**, rev. ed. (Ann Arbor: University of Michigan, 1966), cited by John Pflum and Anita H. Waterman, **Open Education — For Me?** (Washington, D.C.: Acropolis Books Ltd., 1974), p. 18.
4. John Pflum and Anita H. Waterman, **Open Education — For Me?** (Washington, D.C.: Acropolis Books Ltd., 1974), p.26.
5. Vernon Smith, Robert Barr, and Daniel Burke, **Alternatives in Education** (Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1976), p. 66.
6. Pflum and Waterman, *op. cit.*, p. 26.
7. Smith, Barr, and Burke, *op. cit.*, p. 119.
8. Edward H. White, "Contracts," **Man/Society/Technology** 35 (November 1975): 46-47.
9. C. Barbour and J. Czarnecki, "Contract Teaching at Sunset Elementary School," **Theory into Practice**
10. Susan Witting, "Three Behavioral Approaches to the Teaching of

College-Level Composition: Diagnostic Tests, Contracts, and Computer-Assisted Instruction," Paper presented at the Annual Conference on Research and Technology in College and University Teaching (Atlanta, Georgia, November 1974), ERIC Document Reproduction Service, No. 099 887.

11. Theodore A. Chandler, "Analysis of a Contract Approach in a Graduate University Course," Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, Louisiana, February 1973) ERIC Document Reproduction Service, No. 091 345.
12. R.M. Barlow, "An Experiment with Learning Contracts," *Journal of Higher Education* 45 (June 1974): 441-449.

BIBLIOGRAPHY

- Barlow, R.M. "An Experiment with Learning Contracts." *Journal of Higher Education* 45 (June 1974): 441-449.
- Harbour, C. and Czarnecki, J. "Contract Teaching at Sunset Elementary School." *Theory into Practice* 12 (1973): 234-237.
- Chandler, Theodore A. "Analysis of a Contract Approach in a Graduate University Course." Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, Louisiana, February 1973.
- Flanders, Ned A. *Interaction Analysis in the Classroom*, rev. ed. Ann Arbor: University of Michigan, 1966.
- Harris, Chester W., ed. *Encyclopedia of Educational Research*. New York: MacMillan, 1960.
- Pflum, John and Waterman, Anita H. *Open Education — For Me?* Washington, D.C.: Acropolis Books, 1974.
- Smith, Vernon; Barr, Robert; and Burke, Daniel, *Alternatives in Education*. Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1976.
- Sutherland, A.A. "Factors Causing Maladjustment of Schools to Individuals." *The Twenty-Fourth Yearbook of the National Society for the Study of Education*, Part II. Edited by Guy M. Whipple. Bloomington, Illinois: Public School Publishing Company, 1936.
- White, Edward H. "Contracts." *Man/Society/Technology* 35 (November 1975): 46-47.
- Witting, Susan. "Three Behavioral Approaches to the Teaching of College-Level Composition: Diagnostic Tests, Contracts, and Computer-Assisted Instruction." Paper presented at the Annual Conference on Research and Technology in College and University Teaching, Atlanta, Georgia, November 1974.