An Examination of the Teaching Strategies Practiced by the Full-Time Teaching Faculty at Manatee Junior College.

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A random sample (n=25) of full-time faculty at Manatee Junior College (Florida) were surveyed by open-ended questionnaire to determine what instructional techniques were being used and to ascertain if the faculty had acquired minimal training in teaching methods and learning theories. A total of 16 different teaching strategies were identified. Of these, only three teaching strategies--discussion, individual instruction, and lecture--were used by more than 40% of the faculty, with the lecture method being the most popular technique. Audio-visual aids and demonstration were utilized by 35% and 30% of the faculty respectively, homework/problem solving and lab activities by 22% and 26%, and small group work by 17%. The remaining eight strategies were used by less than 15% of the faculty. Coursework in teaching methods and psychological theories was reported by 83%. A proposal for a staff development program to improve teaching methods is appended, along with tabulated data and a bibliography. (JDS)
AN EXAMINATION OF THE TEACHING STRATEGIES
PRACTICED BY THE FULL-TIME TEACHING FACULTY
AT MANATEE JUNIOR COLLEGE

by
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Manatee Junior College

A PRACTICUM PRESENTED TO NOVA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY
September 19, 1975
ABSTRACT

The purpose of this paper was to examine the extent of teaching methodology that was actually being practiced by the full-time instructional staff at Manatee Junior College in the spring semester of the 1974-75 academic year. The determination of the methodology being used was made by surveying the faculty with an open-ended questionnaire.

The results of these questionnaires were analyzed and positive recommendations were made for the improvement of these methodologies. The recommendations consist primarily of a proposed in-service professional development program. The program calls for the use of consultants through a series of two-day workshops. The total program is to be a faculty-originated, faculty-developed and faculty-administered procedure. The proposal contains suggestions for selecting a consultant, developing and originating the program and approximate costs of the program as well as a source for funding it.
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INTRODUCTION

My purpose in this paper was to examine the extent of teaching methodology that was actually being practiced by the full-time instructional personnel at Manatee Junior College (MJC) in the spring semester of the 1974-75 academic year. Through informal discussions with faculty members, the writer has observed a faculty awareness of the need for using sound instructional techniques. However, those discussions usually dealt in generalizations and there was very little mention of specific contemporary learning theories. It was hoped that when faculty members were confronted with the task of putting words on paper, the true nature of instructional strategies would emerge and that rhetoric would be separated from practice.

Manatee Junior College is a public institution supported by the State of Florida. It is fully accredited and is located in a large housing development on Sarasota Bay midway between the cities of Bradenton and Sarasota. It serves approximately thirty-five hundred students per semester. Of these, seventeen hundred are part-time and eighteen hundred are full-time. These students reside primarily in Manatee and Sarasota Counties; although, students from other
counties in Florida attend MJC. The enrollment also includes students from a number of other states and nations.

The primary components of the economy of the area served by MJC are agriculture, light industry and tourism. There is also some phosphate mining and a substantial amount of shipping through a deep-water port.

By legislative enactment, Manatee Junior College was directed to provide three types of higher education, including (a) a university-parallel curriculum; (b) courses designed to meet the vocational-professional need of the Manatee-Sarasota community; and (c) a program of adult education. In addition to these mandated functions, MJC has established itself as one of the leaders in community art and cultural activities.

Manatee Junior College began its first classes in the fall of 1958. This year it will serve more than five thousand students.

The students of MJC are served by sixty-six full-time faculty (defined as teaching at least twelve semester hours) and one hundred ten additional staff members, including administrators, part-time faculty and professional assistants. Of the sixty-six full-time teaching faculty, ten hold a doctorate and the remainder have masters degrees.

An examination of current records at MJC showed that
these degrees are in a variety of academic disciplines. In view of the fact that MJC is solely a teaching institution it was surprising to discover that only five of the full-time instructional staff had degrees in education. This absence of specified degrees in education combined with teaching as being the primary objective of MJC has prompted this study of the instructional methods and techniques actually being practiced at MJC.

This study was limited to the full-time teaching faculty. This restriction was imposed for two reasons: (1) the full-time faculty determine the quality and direction of the instructional program, and (2) the part-time personnel experience a high turnover rate, and it would not be possible to establish a general pattern by sampling the current part-time faculty.

The success of Manatee Junior College as measured in terms of its graduates would be described as better than average for Florida Community Colleges. Recent statistics from the Dean of Occupational Education show that all 1974 graduates of the two-year degree programs were either employed or were able to obtain employment in their areas of preparation. The MJC students who transferred to four-year institutions in Florida had an overall grade point average of 2.93 which ranks third among all the students from the
twent-y-eight community colleges in Florida who transferred 
to in-state institutions.
BACKGROUND AND SIGNIFICANCE

Introduction

In view of its teaching mission the community college's most important element, after the student is the faculty. As indicated by Monroe (1972, p. 254), student discontent is more a result of poor indifferent teaching than it is of irrelevant curricula. It is also reported by Monroe that most students evaluate their college experience in terms of the human equation—the faculty and the extent the faculty has had personal concern for the student. It was the intent of this study to help identify those teaching methods and techniques of the faculty at MJC that help them fulfill their role in the human equation.

Relation Between Learning Theories and Teaching Strategies

Mouly (1968, p. 310) defines teaching as the facilitation of learning. Mouly (1968, p. 311) also concludes that although the learner must do the learning, the teacher is a determining factor with respect to both the learner's progress and the final status he will attain. He also concludes that if the teacher is to provide the student with effective guidance in learning, it is imperative that he know specifically what
role he is to play and the techniques by which effective learning can be promoted. That is, he must be knowledgeable in learning theories and he must employ teaching strategies that will implement these theories.

Additional documentation that establishes a direct connection between learning theories and teaching strategies is provided by Bernard (1965, p. 48), who summarizes his findings in the following statement. "It has been shown that the nature of learning and its various theoretical explanations can be utilized to make the work of the teacher more effective. It is up to the teacher to use all available knowledge in attempting to solve specific classroom problems. The teacher must also continue to seek better answers from contemporary literature. Only the growing teacher can stimulate optimum growth in the pupils."

Current Promotion of Teacher Growth at MJC

At Manatee Junior College there has been no well-defined plan, with stated means and objectives, for enhancing teacher performance. The activities in this area have been limited to the actions taken by individual teachers. These improvement activities have consisted, primarily, of additional graduate work, and attendance at state and national meetings. While these experiences may enhance the individual teacher, they provide little campus-wide impact on the student.
Training of MJC Faculty Compared to National Norms

Since statistics are usually easier to collect and analyze than attitudes and feelings, most studies dealing with community college teachers' competency are restricted to degrees earned and previous experience. A comprehensive national study measuring the previous statistics was undertaken by Medsker and Tillery in 1971. Medsker and Tillery report that nationwide, 77.7 percent of the community college teachers held masters degrees, 8.6 percent held doctorate degrees and over 10 percent held bachelor degrees (Medsker and Tillery, 1971, p. 88). The Medsker and Tillery study supports an earlier study made by Gleazer (1968). Gleazer summarized the degree status of community college instructors by stating that "national studies over an eight-year period (1957-1965) show no significant change in the proportion of the new junior college teachers who have the doctorate (6.2 percent), or those with one year of advanced credit beyond the masters degree (20.7 percent). The proportion of new teachers holding the masters degree rose from 43.6 percent to 51.3 percent, while that of new teachers starting full-time service before achieving a masters degree declined from 28.1 percent to 21.8 percent" (Gleazer, 1968, p. 114). These statistics are similar to those reported by Graybeal (1970, p. 10): 6.2 percent had doctorates, 27.7 percent had
masters degree plus one year, 49.9 percent held masters degrees and 16.1 percent had less than a masters degree.

Based upon the previously mentioned national studies, it appears that community college teachers are adequately trained to teach the subject matter fields at the community college level. An examination of the academic credentials of the MJC faculty showed a favorable comparison with national qualifications. Using the local statistics mentioned in the introduction section of this paper, the following results of the MJC faculty preparation are noted: doctorates (15 percent) and masters degrees (85 percent).

**Personality as a Factor in Teaching Strategy**

Although this study did not deal directly with the professional personalities of the teaching faculty at MJC, it is recognized that there are factors of attitudes and feelings that contribute to the teacher's effectiveness. A classification of teacher personalities that appears to be applicable to the MJC faculty has been made by McKeefery (1959, pp. 2-4)

Three types of teachers are identified according to how they value the student as compared with subject matter. The first identified is the specialist. This is the teacher who loves his subject matter above all other considerations. He may or may not have a doctorate degree, but his self-satisfaction comes from developing a reputation for being a good
scholar, for making demanding assignments and for maintaining high standards by flunking thirty percent or more of his students. He may be more interested in research than in teaching.

The second type is the generalist. He is more concerned with the teaching process than with scholarship in subject matter. This type of teacher has some academic interests and probably more interest in subject matter than in students, but his primary interest is finding better methods of integrating and organizing subject matter so that students can have more breadth in their studies.

The third type is the student-centered teacher who is more concerned with the student's needs and problems than with the mastery of a specialized field of study. Such teachers are likely to try experimental teaching techniques and to attempt to make their courses relevant and suitable to the individual capacities and interests of students.

Monroe (1972, p. 253) concludes that a good teacher cannot be identified by personality tests. However, an attempt was made in this study to identify (by teaching strategy) the MJC faculty according to the three classes named above. This did call for some subjective judgements on the part of the writer. However, in view of the eleven years of classroom teaching experience in the community college, these judgements may be considered as being sound from a workable standpoint. For
example, a teacher who depends solely upon the lecture method in the community college classroom, where there are great individual differences in learning styles, would be classified as a specialist.

Summary

The application of learning theories is through the teaching strategies employed by faculty members. Currently, there is no institutional plan at MJC that provides for the improvement of these strategies. Preliminary investigation and observation showed the MJC faculty to compare favorably with community college faculties nationally in the areas of academic preparation and professional personalities.

The main thrust of this study was to document the extent of teaching strategies being practiced at MJC and to make recommendations for the improvement of these strategies.
PROCEDURES

Introduction

In this section a description of the construction and administration of the data collection instrument that was used in this study is given.

The discussion of the administration of the instrument amounts to a description of the random sampling process that was used; and the identification of the sample that was generated from the population studied. There is also a discussion of data control problems that were encountered.

The commentary on the construction of the data collection instrument deals with two conditions: (1) how the instrument was constructed, and (2) why it was constructed according to a particular format.

Construction of the Instrument

How the Instrument was Constructed

The primary concern in constructing the instrument was to make every effort to ensure that it would measure "real world" data. A search of the literature revealed three types of instruments that were judged suitable for the
purpose of this study: (1) a structured interview, Kerlinger (1964, p. 469); (2) a nominal scale questionnaire, Kerlinger (1964, p. 422), and (3) an essay response questionnaire, Kelley (1974).

A form, for possible use of each of three instruments mentioned in the previous paragraph was written. The value of these instruments was analyzed in the context of the type of data to be collected and the target population. From this base, the essay response questionnaire as described by Kelley (1974) was judged as being most applicable for the study.

A revised form of the essay response questionnaire was developed and used as the data gathering instrument (Appendix I).

Why the Instrument was Chosen

The first survey instrument considered was a structured interview schedule as described by Kerlinger (1964, p. 469). This would have allowed for great latitude and would have provided much data. However, the administration of this instrument would not have been feasible within the given time constraints of this study. Therefore it was rejected on the basis of being too time consuming.

The second potential data gathering device considered was a nominal scale questionnaire (Kerlinger, 1964, p. 422).
If this questionnaire had been used in the study, it would have consisted of identifying the generally accepted teaching strategies and the faculty members would have been asked to indicate which strategies they did and did not use. This instrument was rejected because of the fear that these direct and specific questions would stimulate responses that the teachers retained in theory, but not in practice. That is, it was rejected on the basis that it would have a tendency to measure what the teacher knows instead of what he does.

In view of the above considerations, it was decided that a questionnaire requiring an essay response would be the most objective and reliable. This type of questionnaire was the most difficult to answer and therefore would probably generate less returns than a more highly structured questionnaire. However, in view of objectivity, an essay questionnaire was selected. This is the type of instrument proposed by Kelley (1974) as being the best for evaluation of instruction.

**Structure of the Instrument**

The questionnaire (Appendix I) had two basic purposes:

1. To identify the teaching strategies currently being used at Manatee Junior College, and
2. To determine if the MJC faculty has acquired minimal training in teaching methods and learning theories. The questionnaire (Appendix I) has two components: (1) The respondent is asked to describe
his teaching methods, and (2) to indicate whether or not he has had a formal course or courses in teaching methods and psychological learning theories.

**Administration of the Instrument**

In anticipation of a possible low return rate on the survey questionnaire, it was decided that the instrument would be distributed to a random sample of the faculty. The random sampling was accomplished by the use of a "random generating function." This function was written in FORTRAN IV programming language (Appendix V), and fed via punched cards into the Manatee Junior College IBM 360/40 computer. From the program, a random sample of twenty-five faculty members was generated. This sample, according to instructor number, contained the following outcomes: 159, 005, 105, 141, 247, 285, 215, 134, 143, 115, 434, 222, 230, 261, 238, 447, 302, 256, 304, 234, 004, 334, 277, 174, 008.

In an attempt to obtain as many returns as possible, the data gathering instrument (Appendix I) was hand-delivered to each faculty member whose number appeared in random sample. To further encourage responses, one week after the delivery a phone call was placed to each faculty who had not yet responded. At the end of the second week, twenty-three of the twenty-five participants had responded. This gave a
return rate of ninety-two percent. The results and conclusions of this study was based upon these twenty-three randomly selected faculty members.
RESULTS

An analysis of the returned questionnaires (Appendix I) revealed sixteen distinct teaching techniques being employed at Manatee Junior College. These strategies (techniques) and their symbolic representations are listed in the following table. Also listed in this table is the percentage of the respondents who used a particular strategy.

**Percentage Distribution Table**

<table>
<thead>
<tr>
<th>TEACHING STRATEGY IDENTIFIED</th>
<th>SYMBOLIC REPRESENTATION</th>
<th>PERCENT OF RESPONDENTS USING THE STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio-Visual Aids</td>
<td>A</td>
<td>35</td>
</tr>
<tr>
<td>Discussion</td>
<td>B</td>
<td>65</td>
</tr>
<tr>
<td>Demonstration</td>
<td>C</td>
<td>30</td>
</tr>
<tr>
<td>Guest Speakers</td>
<td>D</td>
<td>4</td>
</tr>
<tr>
<td>Homework &amp; Problem-Solving</td>
<td>E</td>
<td>22</td>
</tr>
<tr>
<td>Independent Study</td>
<td>F</td>
<td>8</td>
</tr>
<tr>
<td>Individual Instruction</td>
<td>G</td>
<td>43</td>
</tr>
<tr>
<td>Lab Activities</td>
<td>H</td>
<td>26</td>
</tr>
<tr>
<td>Lecture</td>
<td>I</td>
<td>91</td>
</tr>
<tr>
<td>Review of Tests</td>
<td>J</td>
<td>13</td>
</tr>
<tr>
<td>Research &amp; Term Papers</td>
<td>K</td>
<td>4</td>
</tr>
<tr>
<td>Role Playing</td>
<td>L</td>
<td>13</td>
</tr>
<tr>
<td>Self-Evaluation</td>
<td>M</td>
<td>9</td>
</tr>
<tr>
<td>Small Group Work</td>
<td>N</td>
<td>17</td>
</tr>
<tr>
<td>Skits</td>
<td>O</td>
<td>4</td>
</tr>
<tr>
<td>Special Projects</td>
<td>P</td>
<td>13</td>
</tr>
</tbody>
</table>

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In Appendix IV there is a matrix displaying the strategies indicated by respondents. The strategies form columns of matrix and respondent numbers constitute the rows. The last two columns of the matrix contain the responses to questions two and three of the questionnaire. Appendix III contains a graphic representation of the percentage table.

No attempt has been made to write precise definitions for each of the teaching strategies identified by the questionnaire responses. It is assumed that these terms have been used as the respondents perceived them in a normal working context.

Not surprisingly, the most popular teaching device of the MJC sample was the lecture. The graph in Appendix III shows that ninety-one percent of the sample use this method. In view of the statement made by Halmos (1975, p. 466) that "the worst way to teach is to talk" which is shared by many others, this high percentage rate could be of concern. However, an examination of the data display matrix (Appendix IV) shows that only one respondent depends solely on the lecture method. In fact, forty-eight percent of the respondents augment the lecture method with at least three additional teaching devices. This suggests no effort should be made to eliminate the lecture, but more attention should be devoted to its more judicious use.
These results show that the MJC faculty believes that student participation is an important component of the learning process. This is evidenced by the statistic showing that sixty-five percent of the sample uses the discussion technique as a teaching strategy. Although this study did not attempt to measure the success of the discussion technique it does document the existence of a core of the MJC faculty who believe the student should be a responsible participant in his own education. The relatively wide variety of teaching strategies employed by most of the respondents indicates that most of the MJC faculty would be classified as generalist. There were six respondents who showed they used less than three strategies; these would be classified as specialist (as defined in the Background and Significance section). There were no responses on the questionnaires that indicated a classification of student-centered.

An unexpected result was the low number of the respondents, thirty-five percent, using audio-visual aids as part of their teaching techniques. Manatee Junior College has excellent audio-visual resources and it was surprising to find they had such a relatively low utilization. In view of the proven value of the use of audio-visual aids, an investigation as to why they are not being used more at Manatee Junior College should be undertaken.
An interesting outcome of this study was the unexpected numbers of faculty members giving students individual instruction. The percentage distribution table shows that individual instruction had more popularity than the demonstration technique. Although this technique was used by only forty-three percent of the faculty, this is evidence that there is concern for individual differences. At least, this result suggests that a receptive faculty group could be formed to study some of the more recent individualized learning programs. If MJC is going to continue to operate successfully with the open-door policy which generates a student body with a wide range of individual learning differences, more of the faculty must make use of individual instruction techniques.

Homework and problem-solving, and lab activities were used respectively by twenty-two and twenty-six percent of the faculty. These are traditional teaching strategies and their relatively low use was not anticipated. One possible explanation might be the high student/teacher ratio at MJC. The teacher who is confronted with large numbers of students is likely to avoid teaching strategies that consume a great deal of his time. At least this result is cause for concern and it is a topic that should be explored through an activity such as a faculty workshop.
The remaining eight strategies identified by this study were used by less than fifteen percent of the sample. This is probably due to the degree of concern for teaching methodology by the various academic departments. It is also probably due in part to subject area and class size. This is not to imply that certain methods must be precluded on the basis of class size and subject matter, but to emphasize that certain methods, such as the lecture, are used because of their ease of application and not because they are necessarily the best methods known. This result shows that many effective teaching strategies are available and are not being practiced by a substantial percentage of the faculty.

Summary

This study revealed sixteen distinct teaching strategies that were employed by the MJC faculty. Only three of these strategies: discussion, individual instruction, and lecture were used by more than forty percent of the faculty. The next two most popular techniques were audio-visual aids and demonstration which were used by thirty-five percent and thirty percent of the faculty respectively. The remaining eleven strategies had a popularity of less than thirty percent with the faculty and could not be considered as having widespread use.
An examination of the data display matrix (Appendix II) shows that eighty-three percent of the sample have had courses in both teaching methods and psychological learning theories. This suggests that a substantial base of faculty members exists who would be receptive to a study program for improving and augmenting teaching methodology.
RECOMMENDATIONS

The purpose of this section is to propose a model for in-service training that will improve and augment the teaching methodology at Manatee Junior College. The need for this proposed model was based upon the outcomes in the results section of this study. The model itself is a derivative of an in-service program proposed by Garrison (1975, p. 18). The objective is to present a model that will be feasible within the constraints of the Manatee Junior College operation. These constraints are the first-hand observations gained by the writer during a ten-year membership of the NJC faculty. They include the personalities and relationships among faculty and administration as well as the limitations of time and budget.

The target of this proposed in-service program is a campus-wide impact on the total college instructional tactics. It will deliberately avoid those activities whose primary function is to enrich the individual instructor, but usually fall short of institutional impact. At this point it should be admitted that the avoidance of those activities is in direct conflict with some portions of a recent professional development program presented by Hoem (1975, p. 32). The primary difference between the in-service program proposed in this
paper and that proposed by Hoem is one of emphasis. Hoem's program concentrates on enrichment of the individual instructor rather than a general plan for campus-wide impact with the enrichment of individual instructors as a component.

With regard to the comments in the previous paragraph, a statement is now given as to what the in-service program should not be:

1. It should not be a plan that calls for an individual faculty member to take advanced courses in his field of specialization.
2. It should not be a short-term project such as participation in conferences, seminars, workshops or national conventions that entail out-of-area travel.
3. It should not be long-term leaves. These may well provide individual enrichment, but they are not likely to have any college-wide impact.
4. It should not be a program that serves as the means for administrators to relay information or expectations to faculty.
5. It should not be an additional function of some administrator with full-load responsibilities. This would almost guarantee that the in-service program will not get the attention it requires to be successful.
(6) It should not be a hidden method of teacher evaluation. Some teachers have a slightly paranoid view, and the best way to combat it is to make the in-service program open and voluntary.

(7) It should not be a speech by an imported expert with no planned follow-up. This has been tried at Manatee Junior College and the effect has been negative.

Before an effective in-service program can be implemented, a healthy faculty attitude must exist. It is believed that such an attitude will be realized if the faculty will accept the following four basic premises:

(1) A college should be a learning place for its faculty as well as its students.

(2) Improved personal-professional development leads inevitably to the improvement of performance and curriculum development.

(3) The only certainty in the coming years about the community college, their programs and their clientele is that these will be in a continuous state of change. Therefore, the primary objective of an in-service program should be to provide the faculty with the necessary intellectual and attitude tools and methods to deal with this change flexibly and productively.

(4) All in-service programs should be faculty-originated, faculty-developed and if possible faculty-administered.
The concept of the proposed in-service program is simple. The basic idea is to make use of consultants through a series of workshops that are originated and developed by the faculty. The effectiveness of the program depends primarily upon the selection of a qualified consultant and the support and commitment of the faculty.

Selection of a Consultant

A consultant selected to serve as a resource person in these workshops must be a person to have the expertise in helping faculty groups find ways to solve their own problems. A consultant with a special "package" to sell should not be selected unless it has been determined that the nature of the package will respond to the problem at hand. The consultant should be hired on the basis of sound recommendations from on-board faculty and/or colleagues from other colleges. He should not be chosen on hearsay or supposed reputation. A poorly chosen consultant may have a negative effect by making the faculty suspicious of the next so-called "expert" brought to the campus.

Before a consultant is actually hired he should be made aware in writing, of the problems he is expected to respond to and he should reply as to his proposed responses to the problem. After the communications have transpired,
a sound judgement as to the worth of a consultant can be made. The major point to keep in mind when hiring a consultant is not to select a person whose primary skill is in giving "inspirational speeches," but instead a person's main contribution should be to help the faculty develop the necessary tools to continue to solve their problems on their own.

Due to the nature of the operating structure of Manatee Junior College, the faculty commitment to an in-service program could probably best be obtained through the Faculty Senate. This approach was successful in obtaining college-wide support for the creation of a learning enhancement center. The faculty's role in the establishment of the learning enhancement center was similar to the commitment needed for the proposed in-service program in the sense that it was faculty-originated and faculty-developed.

**Originating the Program**

Step one is to present the concept of the in-service program to the Professional Affairs Committee of the Faculty Senate. This committee would study the proposed program for its merit and feasibility and make any changes it deemed necessary (past experience with committees suggests this will surely happen). The Professional Affairs Committee would then present the program to the entire senate in the form of a recommendation. It would be emphasized that participation
in the program would be voluntary. After the program has been ratified by the Faculty Senate, it would be submitted to the administration for their approval and funding.

Implementation of the Program

Subsequent to administrative approval of the program, the President of the Faculty Senate would serve as its coordinator. He would work with the Executive Committee of the Faculty Senate to implement the program. The first task of the coordinator and his committee would be to determine areas in which the faculty desires improvement of teaching methodology. A good place to start would be to survey the faculty with a questionnaire listing the sixteen teaching strategies identified in this study and ask them to indicate their study topic preference. The faculty should also be requested to augment the strategies listed by stating any other areas of interest.

As the survey develops, the coordinator and his committee will see patterns of similar needs. The coordinator should then be able to establish a list of apparent priority problems and select what appears to be the most pressing one as being the point of departure. The coordinator should call together interested faculty in this area and make sure the priority identified is of genuine concern. With this same faculty group, refine the problem to the point where there is
a clear consensus. At this point the coordinator should obtain a consultant to deal with the identified problem.

Based upon faculty response to previously conducted faculty retreats, the consultant should be used through a two-day workshop. The administration should grant the interested faculty released time from classes on a Friday afternoon. The workshop could then be conducted on Friday afternoon, Friday evening and Saturday. The coordinator should make sure the workshop is not so highly structured as to prevent the faculty from focusing on their priority problem.

Initially, the in-service program should be planned for three workshops per academic year; one during the fall semester and two during the spring semester. Only one workshop is suggested for the fall semester because of special problems generated with incoming freshmen. The first workshop could probably be most effectively conducted during the first week in November; the second during the first week in February and the third in the middle of April.

Cost and Funding

Consultant fees vary widely and it is not possible to give an exact cost figure. However, if $200 per day is used as a reference point and considering expenses as $300 per visit, the cost per workshop would be only $700. This amounts to an annual cost of $2,100 for three workshops. This is a
small sume to pay when the possible professional growth and improved curriculum and instruction are considered.

Manatee Junior College is fortunate in having a $50,000 annual budget for staff and program development. Using the $2,100 as the total cost of this proposed in-service program, the expenditures of implementation would represent only four percent of the staff and program development fund. This is the type of program that is encouraged by the guidelines of this fund and it is the type of program that should have direct benefit to the MJC students.

Summary

This recommendation is a proposed in-service program for the professional development of the Manatee Junior College Faculty. It is to be faculty-originated, faculty-developed and faculty-administered. The idea of the program is to use consultants through a series of two-day workshops. Participation at the workshops is to be voluntary and the problems to be pursued are to be identified by the faculty.
Prospects for Implementation

Since most of the staff and program development funds have been encumbered for the current year, implementation of the proposed program will not be possible until the 1975-76 academic year. However, the Academic Dean and the President of the Faculty Senate believe the plan has merit, and it will thoroughly be considered as a campus-wide project for the 1975-76 academic year.
APPENDIX I

QUESTIONNAIRE FOR A PRACTICUM
PREPARED FOR NOVA UNIVERSITY
To The Respondent:

This questionnaire is an attempt to measure the teaching strategies being employed by the faculty at Manatee Junior College. Would you please write a brief, concise essay listing those techniques and methods that you actually use in your attempt to accomplish your teaching objectives. Keep in mind that only "real-world" data is solicited; please do not list methods that you do not use. Use extra sheets if necessary.

Part I. Discuss the teaching strategies you use in the attainment of your teaching objectives.
Part II.

1. Have you had at least one formal course in teaching methods?
   Yes___ No___

2. Have you had at least one formal course in psychological theories?
   Yes___ No___
   37  33
APPENDIX II

DEFINITIONS OF TEACHING STRATEGY SYMBOLS
### DEFINITIONS OF TEACHING STRATEGY SYMBOLS

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<th>Symbol</th>
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<td>Discussion</td>
<td>B</td>
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<td>Demonstration</td>
<td>C</td>
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<td>Guest Speakers</td>
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<td>Homework &amp; Problem-Solving</td>
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APPENDIX III

PERCENTAGE DISTRIBUTION GRAPH OF TEACHING STRATEGIES
Percentage Distribution Graph of Teaching Strategies

1See Appendix II for definitions of symbols
APPENDIX IV

DATA DISPLAY MATRIX
# DATA DISPLAY MATRIX

Teaching Strategy Symbol

| #  | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 1  | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 2  | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 3  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  |   |   | Yes| Yes|
| 5  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  |   |   | No| No |
| 6  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  |   |   | Yes| Yes|
| 7  | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 8  |   |   |   |   |   |   |   |   |   | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 9  | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 10 | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 11 | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 12 | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | No| No |
| 13 | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 14 | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 15 | X | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|
| 16 | X | X | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | Yes| Yes|

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## DATA DISPLAY MATRIX

Teaching Strategy Symbol
(continued)

| # | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | 2 | 3 |
| 18 | X | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   | Yes | Yes |
| 19 | X | X | X |   |   |   |   |   | X | X |   |   |   |   |   |   | No  | Yes |
| 20 | X |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   | Yes | Yes |
| 21 | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | Yes | Yes |
| 22 |   |   |   |   |   |   |   |   |   | X | X | X |   |   |   |   | X   | Yes |
| 23 | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | Yes | No  |
APPENDIX V

COMPUTER PROGRAM TO GENERATE NINE-DIGIT RANDOM NUMBER FUNCTION
COMPUTER PROGRAM TO GENERATE
NINE-DIGIT RANDOM NUMBER FUNCTION

C FUNCTION TO PRODUCE NINE-DIGIT RANDOM NUMBER

FUNCTION RNG(N)

1  N3 = N * 3
2  N2 = N * 2
3  IF (N3 - 999999883) 7, 7, 5
5  N3 = N3 - 999999883
   GO TO 3
7  IF (N2 - 999999883) 9, 9, 8
8  N2 = N2 - 999999883
   GO TO 7
9  N = N2 + N3
10 IF (N - 999999883) 11, 11, 10
11  N = N - 999999999
12 RETURN

C THE VALUE RETURNED FROM EACH USE OF THE FUNCTION SHOULD
BE THE ARGUMENT FOR THE NEXT USE
BIBLIOGRAPHY


