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The Design, Development and Field Testing of a Technique To Measure the Effectiveness of Adult Education Instructors in Managing Their Verbal Communication of Intent when Establishing the Instructor/Learner Relationship

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THE DESIGN, DEVELOPMENT AND FIELD TESTING OF A TECHNIQUE TO MEASURE THE EFFECTIVENESS OF ADULT EDUCATION INSTRUCTORS IN MANAGING THEIR VERBAL COMMUNICATION OF INTENT WHEN ESTABLISHING THE INSTRUCTOR/LEARNER RELATIONSHIP

By

John Brown-Parker

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ABSTRACT

THE DESIGN, DEVELOPMENT AND FIELD TESTING OF A TECHNIQUE TO MEASURE THE EFFECTIVENESS OF ADULT EDUCATION INSTRUCTORS IN MANAGING THEIR VERBAL COMMUNICATION OF INTENT WHEN ESTABLISHING THE INSTRUCTOR/LEARNER RELATIONSHIP

by

John Brown-Parker

The aim of this study was to investigate the effectiveness of instructors in managing their verbal communication of intent when establishing the initial instructor/learner relationship.

Six major phases were employed in the methodology: 1) The development of a conceptual framework explaining the role intent plays in the instructor/learner transaction and the design of a coding technique; 2) Pilot testing; 3) Content validation by a panel of judges; 4) Modification after panelists' feedback; 5) Training of naive coders to learn and apply the technique with reliability; and 6) Field testing of the coding technique.

From the findings of the study, a major conclusion was that initial interaction between instructor and learners facilitates the instructor being perceived as helpful and well-intentioned. The instructors most effective in establishing rapport were distinguished from those who were least effective by consistently adopting patterns of communication in which they frequently: 1) checked for misunderstandings; 2) ensured learners had enough time to respond; 3) reinforced their learners' responses through the use of positive praise, regard or acknowledgement; and4) indirectly explained their intent through the use of questions, suggestions or requests.

The communication patterns used by those instructors who were perceived as least well-intentioned, were characterized by: 1) a lack of interaction with learners; 2) a propensity to use long sequences of direct explanations or clarifications of intent; 3) the frequency with which they prepared their learners that upcoming explanations were not meant to be seen as malicious or arbitrary, and 4) made excuses for some behavior based on having no alternative course of action by reference to their ascribed power as instructor. To Judi, the "special woman" in my life

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V

TABLE OF CONTENTS

		Page	
	LIST OF	TABLES	
•	LIST OF	FIGURES	
	Chapter		
	1.	IDENTIFYING THE PROBLEM 1	
		PURPOSE	
		Research Objectives 4	
		ASSUMPTIONS AND BIASES 6	
		IMPORTANCE	
		GENERALIZABILITY	
		LIMITATIONS	
		DEFINITION OF TERMS 15	
		OUTLINE OF CHAPTER CONTENTS	
	2.	PRECEDENTS IN LITERATURE	
		PHILOSOPHY AND INTENT	
		LAW AND INTENT	
		SOCIAL PSYCHOLOGY AND INTENT	
		COMMUNICATION AND INTENT	
		PERCEIVED RELATIONSHIP AND INTENT	
		EDUCATION AND INTENT	
		METHODOLOGICAL PRECEDENTS 40	
		SUMMARY	

Chapter

3.	DESIGN OF THE CONCEPTUAL FRAMEWORK	46
	THEORETICAL ORIENTATION	46
	Identifying the Parts of the System	46
	DEVELOPMENT OF A CLASSIFICATION SCHEME FOR	
	MANAGEMENT OF INTENT	47
	A Schema for Managing Impressions of Intent	49
	Modifications to the Thomas and Pondy Schema	51
	DESIGN OF A CODING TECHNIQUE	59
	Design for Selecting Groups of the 'Most	
	Effective' and 'Least Effective' Instructors	60
	Design for Recording and Transcribing	61
	Design for Coding Categories and Combination Categories	62
	Design for Analysis and Display of Coded Data	64
	Design for Reliability and Validity of the Coding Technique	69
	SUMMARY	71
4.	METHODOLOGY OF THE STUDY	73
	PHASE 1: DEVELOPMENT OF AN INITIAL DRAFT OF THE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE	73
	PHASE 2: PILOT TESTING TO ESTABLISH THE ADEQUACY OF THE CLASSIFICATION SCHEME AND FEASIBILITY OF THE CODING TECHNIQUE	74
	PHASE 3: THE CONTENT VALIDATION OF A TENTATIVE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE .	75
	PHASE 4: FINAL MODIFICATIONS TO THE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE	76

Page

Chapter

4.	PHASE 5: TRAINING OF A CODING TEAM 76
	PHASE 6: THE FIELD TESTING OF THE CODING TECHNIQUE
	Step 1: Selection of Subjects 78
	Step 2: Data Gathering 80
	Step 3: Identifying Groups of 'Most Effective' and 'Least Effective' Managers of Intent 81
	Step 4: Transcribing Tapes and Coding Transcripts
	Step 5: Display of Coded Data
	Step 6: Analysis of Coded Data 82
	SUMMARY
5.	FINDINGS OF THE FIELD TEST
	COMPARISON OF THE VERBAL COMMUNICATION BEHAVIORS USED BY THE 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' GROUPS 93
	Findings in Response to Research Question 1.0
	Findings in Response to Research Question 1.1
	Findings in Response to Research Question 2.0
	Findings in Response to Research Question 3.0
	SUMMARY
6.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 151
	SUMMARY
	CONCLUSIONS 153

.

Page

Chapter Page 6. Recommendations for Modifications to Classification Scheme. 165 Recommendations for Gaining Access . . . 166 Recommendations for Identifying Suitable Support Personnel 167 Recommendations for Data Analysis 167 Recommendations for Further Research . . . 167 APPENDICES COMMUNICATION OF INTENT IN THE CLASSROOM . . . Α. 172 Β. INITIAL CLASSIFICATION SCHEME 182 с. RECOGNITION RULES FOR UNITIZING AND CATEGORIZING TRANSCRIPTS 186 D. ANDERSON AND ANDERSON (1962) INTERVIEW RATING SCALE . . . 188 Ε. PROCEDURES FOR AUDIO RECORDING 197 F. PROCEDURES FOR TRANSCRIBING TAPES 198 G. PROCEDURES FOR UNITIZING AND CATEGORIZING TRANSCRIPTS 199 Η. SAMPLE TALLY SHEET 200 Ι. SAMPLE PRINTOUT SEQUENCE FOR ONE INSTRUCTOR . 201 SAMPLE STATISTICAL REPORT FOR ONE INSTRUCTOR . J. 202 K. SAMPLE REPORT OF SEQUENCES OF THREE UTTERANCES 204 GUETZKOW'S PROCEDURES FOR ESTIMATING L. UNITIZING RELIABILITY 205 GUETZKOW'S PROCEDURES FOR ESTIMATING Μ. CATEGORIZING RELIABILITY 206 PROCEDURES USED DURING THE PILOT STUDY Ν. 212 PROCEDURES FOR SELECTING PANELISTS 216 0.

Appendix

Ρ.	CHANGES MADE TO THE CLASSIFICATION SCHEME ON THE RECOMMENDATION OF THE PANELISTS	224
Q.	PROCEDURES USED TO IDENTIFY AND TRAIN A CODING TEAM	225
R.	INVITATION TO PARTICIPATE IN THE FIELD TEST .	232
s.	CORRESPONDENCE TO PARTICIPANTS IN THE FIELD TEST	236
т.	MEAN SCORES OF INSTRUCTOR EFFECTIVENESS IN ESTABLISHING INITIAL RAPPORT	241
U.	UNITIZING AND CATEGORIZING RELIABILITY COEFFICIENTS OBTAINED BY CODING TEAM	243
BIBLIOG	RAPHY	245

Page

LIST OF TABLES

.

Table		Page
1	A Comparison of the Proportional Use of Each Category by the 'Most Effective' Instructors	. 94
2	A Comparison of the Proportional Use of Each Classification by the 'Most 'Effective' Instructors	. 96
3	Differences in the Proportional Use of Categories and Combination Categories by the 'Most Effective' Group	. 97
4	Summary of Findings from Table 3 to Identify those 'Most Effective' Instructors Whose Use of Categories were Similar	. 99
5	Differences Between the Frequency of Categories Used in the First and Second Halves of the Lessons Presented by the 'Most Effective' Instructors	100
6	A Comparison of the Ten Most Frequently Occurring Paired Utterances Used by the 'Most Effective' Group	102
7	Differences in the Use of the Selected Paired Utterances by the 'Most Effective' Group	103
8	Summary of Findings from Table 7 to Identify those 'Most Effective' Instructors Whose Use of Paired Utterances were Similar to each other	104
9	Differences Between the Paired Categories Used in the First and Second Halves of the Lesson by the 'Most Effective' Instructors .	105
10	Differences in Probability of One Category Following Another in Selected Paired Utterances for 'Most Effective' Group	. 106

Table

11	Summary of Findings from Table 10 to Identify the X Probability of One Category Following Another in Frequently Used Paired Utterances by the 'Most Effective' Instructors 107
12	Differences in the Probability of One Category Following Another in Selected Paired Utterances for the First and Second Halves of the Lesson for Each of the Instructors in the 'Most Effective' Group 108
13	Ranking of Incidence of Sequences of Three Utterances Frequently Used by the 'Most Effective' Instructors
14	Summary from Table 13 to Identify Patterns in the Sequences of Three Utterances Frequently Used by the 'Most Effective' Instructors 110
15	A Comparison of the Proportional Use of Each Category by the 'Least Effective' Instructors 111
16	A Comparison of the Proportional Use of Each Classification by the 'Least Effective' Instructors
17	Differences in the Proportional Use of Categories and Combination Categories by the 'Least Effective' Group
18	Summary of Findings from Table 17 to Identify those 'Least Effective' Instructors Whose Use of Categories were Similar to Each Other 114
19	Differences Between the Paired Categories Used in the First and Second Halves of the Lesson of Instructors in the 'Least Effective' Group 115
20	A Comparison of the Proportional Use of Selected Paired Utterances by the 'Least Effective' Group
21	Differences in the Use of the Selected Paired Utterances by the 'Least Effective' Group 118
22	Summary of Findings from Table 21 to Identify those 'Least Effective' Instructors whose Use of Paired Utterances were Similar to Each Other

Ta	bl	е
----	----	---

23	Differences Between the Paired Categories Used in the First and Second Halves of the Lesson by the 'Least Effective' Instructors	120
24	Differences in Probability of One Category Following Another in Selected Paired Utterances for 'Least Effective' Group	122
25	Summary of Table 24 to Rank the X Probability of One Category Following Another in the Paired Utterances Used by the 'Least Effective' Instructors	123
26	Differences in the Probability of One Category Following Another in Paired Utterances Used by the 'Least Effective' Instructors During the First and Second Halves of the Lesson	124
27	Ranking of Incidence of Sequences of Three Utterances Frequently Used by the 'Least Effective' Instructors	125
28	Summary from Table 27 to Identify Patterns in the Sequences of Three Utterances Frequently Used by the 'Least Effective' Instructors .	126
29	Differences in the Proportional Use of Categories by the 'Most Effective' and 'Least Effective' Subgroups	131
30	Differences in the Use of Selected Paired Utterances by the 'Most Effective' and 'Least Effective' Subgroups	134
31	Ratios Between 'Most Effective' and 'Least Effective' Subgroups in their Use of Paired Utterances	136
32	Differences in the Probability of One Category Following Another in Selected Paired Utterances Between Subgroups of 'Most Effective' and 'Least Effective' Instructors	138
33	Comparison of the Probability of One Category Followed by Another	140

LIST OF FIGURES

.

-

Figure	Page
1	Positive Cycle of Interpersonal Relations 30
2	Negative Cycle of Interpersonal Relations 30
3	MacKay's Model of Intentionality
4	Tubb's Model of Intentional and Unintentional Communication
5	Stake's Model for Processing of Descriptive Data 37
6	The Function of Intent in Educational Contexts . 38
7	Model of Intent for Program Evaluation 39
8	Communication of Intent: An Open Systems Model . 48
9	Managing Impressions of Own Intent 49
10	Modifications to Thomas and Pondy (1977) Schema 51
11	Final Revision of the Classification Scheme for an Instructor's Verbal Management of Intent . 53
12	Sample Cues to Assist in Identifying Verbal Categories
13	Pairing Utterances in a Sequence 66
14	Worksheet Used to Calculate Sources of Variance Between Proportions 86
15	Differences in the Proportional Use of Categories in the 'Repairing' Classification 128
16	Differences in the Proportional Use of Combination Categories

Chapter 1

IDENTIFYING THE PROBLEM

In an effort to establish an adequate instructor/ learner relationship, the well-intentioned adult education instructor has an incentive to avoid communication behaviors that could be interpreted by learners as contrary to their psychological needs or learning interests. To minimize inaccurate communication of intent when establishing the instructor/learner relationship, the adult education instructor functions in two roles. First, as observer, to discern verbal messages and nonverbal cues that indicate learners have understood or misunderstood the instructor's intent. Second, in response to this feedback the instructor functions as actor, consciously managing his verbal and nonverbal communication to ensure that the learners' perceptions are congruent with his desire to be seen as a helpful and well-intentioned instructor.

During the first class meeting the adult learner has minimum information about the instructor's competence, integrity or intent. Thomas and Pondy (1977) and Schmuck and Schmuck (1971) suggest that each party has a need to know the other's intent in order to predict how they might interact appropriately in the instructor/learner relationship.

When confronted with feelings of anxiety and under some pressure to view oneself in positive terms, an adult learner unfamiliar with the "culture of the classroom", may tend to see others as the source of any discomfort or frustration. Seeing himself as fair and reasonable, and identifying with other learners in a similar situation, a learner often shifts the blame for any dissonance onto the most obvious source of discomfort -- the instructor. The learner is apt to selectively attend to and recall negative aspects of the instructor's verbal and nonverbal communication. This can culminate in an exaggerated impression that the instructor is being intentionally uncaring and uncooperative in the instructor/learner relationship.

Within the context of the adult education classroom, this situation becomes an extremely difficult communication problem for the instructor to resolve. The instructor must attempt to accommodate the needs of each adult learner who brings into the initial meeting a bundle of diverse expectations, goals, experiences, assumptions, norms, beliefs, world views and even linguistic differences (Houle, 1961; McNeil, 1976; Knowles, 1977; and Sarbaugh, 1979).

Given the authority and responsibility to facilitate learning, classroom instructors typically function in a predominantly oral communication situation. It is a situation in which a large group of learners are influenced, whether favorably or unfavorably, by the instructor's overt

attempt to control, manipulate or manage the learning environment. A great deal of the instructor's success is dependent upon his repertoire of verbal communication skills.

The quality of this communication is suggestive of a particular type of instructor/learner relationship. That is, the perceived relationship and intent of the instructor is judged as positive with a desire to help and share; or as neutral, with a tendency to ignore or be indifferent; or as negative, with a tendency to dominate, frustrate or thwart the learner.

No studies in adult education were found that offered a conceptual or operational framework providing adequate descriptive categories of verbal communication used by instructors to manage their intent in the instructor/ learner relationship. No empirical studies were found that attempted to measure the instructor's verbal management of intent.

At present many well-trained and well-intentioned adult educators are dismayed and discouraged when their efforts to build adequate instructor/learner relationships are not reciprocated and instead, learners drop out or conflicts occur. Therefore it seemed worthwhile to learn more about adult education instructors who are 'most effective' or 'least effective' in managing their verbal communication of intent when establishing an instructor/ learner relationship.

PURPOSE

The purpose of this study was to develop and field test a technique for classifying and measuring the verbal communication used by adult education instructors for managing their learners' perceptions of instructor intent when establishing an instructor/learner relationship.

Research Objectives

In order to facilitate an orderly and systematic approach to the design, development and field testing of the technique, a number of research objectives were formulated.

<u>Objective #1</u> To develop a conceptual framework, a classification scheme and a measurement technique to allow objective data collection. This first step was based upon an approach advocated by Amidon and Hough:

In the behavioral sciences, principles of human behavior are often derived as a result of a specific pattern of activities. An overall conceptual framework is first proposed from which hypotheses are formulated and tested. The development of this framework as a first step is important in that it gives both substance and direction to the process of formulating and testing. When hypotheses are accepted, the data from such research provide the formulation of theory. When principles of human behavior can be derived from theory, then theory gives direction to action. Specific instances can then take on generalizable meaning (Amidon and Hough, 1967, p. 2).

Objective #2 To field test this technique for classifying and measuring the verbal communication used by adult education instructors to manage their learners' perceptions of the instructor so one is seen as helpful

and well-intentioned when establishing the instructor/ learner relationship.

The following enabling objectives were formulated to give direction to various phases of the field test:

Phase 1: To pilot test the feasibility of this technique which allows reliable coding of an instructor's verbal management of intent.

Phase 2: To invite a reaction panel of expert judges to act as external criteria for content validation of the conceptual framework, classification scheme and coding technique.

Phase 3: To modify the tentative conceptual framework, classification scheme and coding technique based upon the feedback provided by the panel of experts.

Phase 4: To train a naive group of coders to learn the classification scheme and apply the coding technique with reliability.

Phase 5: To establish if there were statistically significant differences between the verbal communication used by instructors who were 'most effective' and 'least effective' in their management of intent when establishing the instructor/learner relationship.

The following research questions were asked during this final stage of the field test. They were as follows: 1.0 Are there differences or similarities among the verbal communication behaviors used by the five instructors who were identified by learners as 'most effective' managers of their intent?

1.1 Are there differences or similarities among the verbal communication behaviors used by the five instructors identified by learners as 'least effective' managers of their intent? 2.0 Do the verbal communication behaviors used by groups of the 'most effective' instructors differ from those verbal communciation behaviors used by groups of 'least effective' instructors?

3.0 Are there patterns of verbal communication which are used more consistently by the group of 'most effective' instructors than by the group of 'least effective' instructors? Conversely, are there patterns of verbal communication which are used more consistently by the group of 'least effective' instructors than those used by the group of 'most effective' instructors?

ASSUMPTIONS AND BIASES

A recognized bias and five assumptions underpin this study. First, the bias is held that the humanistic and democratic assumptions and practices of andragogy are an appropriate foundation for the management of adult education classroom environments. This approach adopts those mentalistic and psychological theories which stress learner needs, mutual trust and respect, mutual support and help, physical and emotional support, acceptance of differences, mutual responsibility for planning outcomes, freedom of expression and access to information, and encouragement of self-directed and learner-centered instruction. Educational thinkers influencing this bias are Abraham Maslow (1970), John Dewey (1938), Carl Rogers (1969), Julius Nyerere (1976), Paulo Freire (1970) and Malcolm Knowles (1977). By

identifying this bias at the onset of the study, it can be understood why the conceptual framework of this study emphasizes the positive dimension of an instructor's verbal management of intent; that is, those verbal communication behaviors used to help avoid misunderstandings, misinterpretations or potential conflict when establishing an instructor/learner relationship.

A description of the characteristic uniqueness of the reality in which we move can help us to better understand some phenomenon. As Weber (1949, p. 78) argues, "order is brought into this chaos only on the condition that in every case only a part of concrete reality is interesting and significant to us, because only it is related to the cultural value with which we approach reality". In line with this thinking, the first of the five assumptions is that it is possible to develop an observational technique that minimizes distortion and provides a plausible representation of actual events or reality. This assumption is based on the view that a true representation of reality can be had by expressly and consciously selecting, analyzing and organizing specific observable phenomena.

The second assumption is that the verbal communication classified by the researcher, and evaluated by a panel of expert judges, is a plausible representation of the major observable verbal behaviors used to manage the learners' perceptions of instructor intent. Based on the Thomas and Pondy (1977) 'Intent' model of conflict

management, it follows that verbal communication can be initiated by either instructor or learner to discern the other's intent. One can ask for or offer clarification of specific statements or actions; one can announce frustrations or reactions to another's behavior; one can offer explanations, excuses or reparations; or one can give or receive feedback that will avoid future misunderstandings.

The third assumption is that instructors who are successful in establishing adequate rapport or 'ideal relationships', are also seen by their learners as wellintentioned. Instructors who are less successful in establishing adequate classroom rapport, will be seen by learners as less well-intentioned.

The fourth assumption is that the greater the difference between people's normative beliefs, overt behaviors, role expectations, and world views, the more dissimilar will be the perceptions and intepretations of each other's intent. The learner's perception of the instructor's intent will then influence how the learner develops the subsequent relationship with the instructor. This assumption evolved from an intercultural communication principle postulated by Sarbaugh (1979) who contends that as "the perceived relationship and intent moves from most homogeneous to most heterogeneous, the probability of communication breakdown increases" (p. 71).

The fifth assumption is that the adult learner, unsure of the normative rules and expectations of the classroom will be particularly sensitive to his personal assessment of his adequacy in the face of academic demands and the congruency of his interests with those of his instructor, peers and institution (Boshier, 1972 and 1973; Clarke, 1980). If there are incongruencies or misunderstandings, the learner will tend to see themself as the cooperative and reasonable party in order to retain self respect and esteem (Thomas and Pondy, 1977; Lerner and Simmons, 1966). It seems plausible to assume that a great deal of the blame for incongruencies or frustrations will be shifted onto the teacher for allowing this to occur. Exaggerated attributions of intent will be ascribed to the instructor if the behavior: 1) seems to constrain the learner's behavioral alternatives or outcomes; 2) is perceived as intentionally detrimental to the learner's interest; and 3) is considered anti-normative or unnecessary (Tedeschi, 1973).

IMPORTANCE

There are four main elements of this study that underlie its importance to adult education. First, the study can benefit the adult learner. Successful facilitation of optimal conditions for learning requires instructors to be successful managers of their communication. If instructors become more aware of the

verbal behaviors that help to accurately communicate instructor intent, classroom failures could occur less frequently.

Second, the study could be of particular interest to adult education instructors in understanding more about the verbal communication patterns they use to successfully manage their learner's perception of instructor intent. Generally, instructors have an incentive to manage their communication in an attempt to have learners perceive them in some specific way. In the learner-centered classrooms of adult education, it is important for the instructor not only to be trustworthy, helpful and willing to share, but also to be seen by learners as trustworthy, helpful and willing to share. In short, it is important for the instructor to be perceived by his learners as well-intentioned.

Third, the notion that a person's intent provides a central organizing principle in making sense out of another person's behavior has been supported by philosophical heuristic argument. To be human is to form intentions towards our world and to assume that others have intentions toward us. In recent years there has been increasing interest in attempting to operationalize and utilize the seemingly ambiguous concept of intent (Anscombe, 1966; Maselli and Altrocchi, 1969; Schmuck and Schmuck, 1971; Crittenden, 1974; Thomas and Pondy, 1977; Sarbaugh, 1979; and Freyberg, 1980). Thus, it is important to build upon this growing body of existing knowledge and attempt to

further understand a concept that may help to better describe and explain human communication processes.

Fourth, while many classroom climate assessment systems and teacher/learner interaction analysis systems indirectly acknowledge the role which intent plays in establishing adequate instructor/learner relationships (Pratt, 1979; Simon and Boyer, 1974; and Lake et al., 1973), no studies were found that utilize intent as the central organizing concept. The methodological precedents of this study may provide a foundation for further inquiry into the role intent plays in the establishment of adequate interpersonal relationships between instructor and learners.

GENERALIZABILITY

The subjects used in this study were a convenience sample of Australian instructors drawn from a metropolitan region of Australia. Because of the non-random selection of instructors in the sample and the small class sizes, the findings of the field study cannot be generalized to a wider population of instructors, nor to adult education instructors who work in similar educational settings in Australia. Similar studies will need to be carried out using this coding technique to establish the strength of its reliability and usefulness.

LIMITATIONS

In this study there are five limitations to the methods and approach used to investigate an instructor's verbal management of intent. First, this study was limited to an examination of verbal communication used by adult education instructors. No attempt was made to observe or measure the nonverbal management of intent by the instructors.

It is acknowledged that: 1) the nonverbal communication channel carries over 65 percent of social meaning (Birdwhistell, 1970) and has an overwhelming influence upon interpersonal communication (Smith, 1979); 2) there is an intimate relationship between nonverbal and verbal communication (Knapp, 1978; Mehrabian, 1968); 3) often nonverbal behaviors conflict with or negate the verbal message (Mehrabian, 1971); and 4) the study of nonverbal communication in teaching has significant potential in helping to better understand the teaching process (Smith, 1979).

However, as Banks et al. (1978) suggest, because of the methodological complexities and problems in observing and recording nonverbal communication, it was decided to limit the study to a single variable, that of verbal communication.

Research relative to tabulating, analyzing and interpreting nonverbal behavior in classroom settings is in its infancy. There is as yet no agreement on a unit of measurement, procedures, interpretative

rules or generalized stability of any conclusions reached (Banks et al., 1978. p. 14).

Second, single variable verbal communication is part of an information system that is generally examined using either a structural or content approach (Monane, 1967). According to Donahue, Hawes and Mabee (1981), the structural approach focuses on the individual as the unit of analysis and assesses who talks to whom, about what and how frequently. In contrast, the content approach focuses on utterance patterns and assesses: 1) what is said (content), 2) how one feels about what is said (relationship), and 3) what one should do about what and how something is said (control). While a learner's attribution of intent might be based on all of the above three types of information, the measurement technique developed for this study is limited to the content or what is said in a verbal utterance.

Third, the coding scheme used for systematic recording of an instructor's verbal management of intent is event-sequential and utilizes a verbal utterance as the unit of analysis. Like any communication construct, the unit of analysis and categories used in the coding scheme are a function of the research interest and a limited approximation of behavior. Their appropriateness is dependent upon their functional value and their plausibility. There is no reason to believe that to code according to a time interval is any more important than coding predefined functional units that ignore duration. For example, one category may take tens of seconds to

articulate while a simple 'we' or 'our' message may take less than a second.

On the other hand, all coding systems using units of analysis that are discrete and exhaustive, whether based on a time interval or a sequence of events, assume that each behavior tallied is equivalent. This poses the problem of losing the intensity of a rare but important event by its ending up as a tally on a score sheet (Ellis, 1977). Given these limitations and the nature of this exploratory study, the use of an event-sequential coding scheme was adopted.

Fourth, audio-recordings of instructors were limited to the initial meeting of each class in the third term rather than in the first term of the year. It was expected that most learners would be meeting their instructor for the first time. This was not the case as a large number of learners had joined their class in the previous term. As a result, some learners may have based their rating of the instructor's effectiveness in establishing the instructor/ learner relationship on previous meetings rather than the instructor's effectiveness during the particular class meeting that served as the source of data.

Fifth, because the field test sample was selected from two sets of extreme scores, the internal validity of the findings could normally be effected by statistical regression. However, the instrument to identify high and low scores in establishing initial rapport was designed only for use at the first class meeting and was not intended to

be administered for a retest or post-test to assess any change in the relationship. Although the two groups of instructors were selected on the basis of the extreme scores, the instructors were subsequently evaluated on the unrelated dependent variable of instructor verbal communication behaviors. This would suggest the findings associated with the second variable should be reasonably free of the regression effect.

DEFINITION OF TERMS

The following terms and phrases are used in the description of this study. Definitions for each term and phrase are provided to form a common basis for understanding.

- <u>Adult Education</u>. The process whereby men and women, alone or in groups, attempt to improve themselves by increasing their skills or knowledge, developing insights and appreciating or changing their attitudes; or the process by which individuals or agencies attempt to change men and women in these ways (Houle, 1970).
- <u>Andragogy</u>. A model of assumptions about adult learners in contrast to traditional concepts of youthful learning subsumed under pedagogy. The model assumes that as individuals mature:

 their concept moves from being a dependent personality toward being a self-directed human being
they accumulate a growing reservoir of experience that becomes an increasingly rich source for learning; 3) their readiness to learn becomes orientated increasingly to the developmental tasks

of their social roles; and 4) their time perspective changes from one of postponed application of knowledge to immediacy of application and accordingly their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness (Knowles, 1980).

- <u>Attribution</u>. The inference that an observer makes about the causes of behavior, the 'what' or the 'why' of either one's own or another person's behavior (Bar-Tal, 1978).
- <u>Conflict</u>. The process which begins when one party perceives another has frustrated or is about to frustrate some concern of theirs (Thomas, 1976).
- Evening College. School-based providers of non-credit leisure and vocational instruction in Australia for adults below the college level.
- <u>Motive</u>. The 'why' of human behavior. Motive is quite distinct from intent. Motive is the moving force, desire, wish, want, need or cause which induces action. It is the state of feeling that impels one towards an act. In general use, the meaning of motive often shades into the meaning of intent (Words and Phrases, 1958; Roget's Thesaurus, 1978). A person may have a good intent but a bad motive, or a person may have a good motive but a bad intent. Motives are described on a continuum from 'good' through 'arbitrary', 'willful', 'deliberate' to 'malicious'.
- Intent. The 'what' of human behavior. It has six main conceptual synonyms: aim, purpose, design, object, goal or objective (Webster, 1961; <u>Words and Phrases</u>, 1958). The 'zone of intent' which the study addresses is

confined within the establishment of interpersonal relationships between instructor and learners (the affective domain), rather than the learning goals or objectives set by the learner or instructor (the cognitive domain). Intent is an act or emotion of the mind that seldom is capable of direct or positive observation or proof. It is a mental or psychological state and can be evidenced only by words or conduct of the person who claimed to have entertained them. A declaration of intent, however, may be false. Intention is used as a synonym for intent in this study.

- Perceived Intent. A logical process of inference from cues perceived by an individual or individuals. From the perceiver's point of view, any effect of another person's actions, whether past, present or anticipated, is a potential reason to believe that this person has engaged in that action. To infer that the action occurred for certain reasons is to specify one's perception of that actor's intent (Jones and Davis, 1962). The perceived intent of another is usually expressed as an underlying disposition on a continuum of descriptors from 'helpful' through 'neutral' to 'harmful' (Sarbaugh, 1979). The term does not refer to the more intuitive process based on the personal knowledge or awareness of one's own intentions.
- <u>Paralinguistic Cues</u>. The voice qualities including pitch, pitch control, rhythm control, tempo, articulation,
resonance, glottis control and vocal lip control (Harrison, 1974).

- <u>Verbal Communication</u>. The exchange of information though oral or written linguistic symbols or signs.
- Nonverbal Communication. The exchange of information through nonlinguistic symbols or signs.
- <u>Coding</u>. A system for translating real events into quantifiable units. For this study it is the transformation of qualitative data obtained by audio-recordings of instuctors into a form which renders them open to quantitative treatment. This operation requires coders to separate qualitative materials into units and then classify the unitized material according to a category scheme devised for the study.

OUTLINE OF CHAPTER CONTENTS

In Chapter 2, precedents in literature are reviewed to provide an overview of the conceptual and operational approaches that have been used to examine the role 'intent' plays in human relationships.

In Chapter 3, the design of the conceptual framework is explained. It includes a discussion of the theoretical orientation to communicating intent in the classroom, the development of a classification system for measuring an instructor's verbal management of intent and the design of the coding technique.

In Chapter 4, the methodology employed in each of the six major phases of the study are described and explained. The phases are: 1) development of an initial draft of the conceptual framework, classification scheme and coding technique; 2) a pilot test; 3) validation by a panel of judges; 4) final modifications and refinements based on the findings of the pilot test and feedback from panelists; 5) training of a naive group of coders to learn and apply the technique with reliability; and 6) field testing of the coding technique.

In Chapter 5, the findings of the field test are reported. These are presented in three parts: 1) instructor effectiveness as rated by learners; 2) coding reliability; and 3) the analysis and comparison of a small group of 'most effective' and 'least effective' instructors in their verbal management of intent.

Chapter 6 summarizes the conclusions drawn from the findings of the field test and provides implications and recommendations for future research.

Chapter 2

PRECEDENTS IN LITERATURE

The review of precedents in literature provides an overview of the conceptual and operational approaches that have been used to examine the role intent plays in human relationships. Though very few studies have dealt with the management of intent, the studies that are reviewed form a logical theoretical basis for the conceptual framework developed for this study.

PHILOSOPHY AND INTENT

The concept of an instructor verbally managing his intent is based on the premise that reasons for acting in some way do exist in a person's mental state which can result in intentional actions toward somebody or something. Anscombe (1966) argues:

Ancient and medieval philosophers -- or some of them at any rate -- regarded it as evident, demonstrable, that human beings must act with some end in view, and even with some one end in view. The argument for this strikes us as rather strange. Can't a man just do what he does, a great deal of the time? He may or may not have a reason or a purpose; and if he has a reason or a purpose, it in turn may be what he happens to want; why demand a reason or purpose for it? And why must we at last arrive at some one purpose that has an intrinsic finality about it? The old arguments were designed to show that the chain could not go on forever; they pass us by, because we are not inclined to think it must even begin; and it can surely stop where it stops, no need for it to stop at a purpose that

looks intrinsically final, one and the same for all actions. In fact there appears to be an illicit transition in Aristotle, from 'all chains must stop somewhere' to 'there is somewhere where all chains must stop' (Anscombe, 1966. p. 34).

This explanation shows why some linkage between a person's intents or purposes, and their actions must at least begin. Given that intentional action does exist, useful approaches to describe and explain this phenomenon within human relationships can proceed.

Attempts to interpret the phenomenon of intentionality, to operationalize a theory of intent, or even delineate the unique characteristics of how people articulate their intentions have been left to recurrent philosophic argument. Few philosophers have overcome a sea of conceptual and semantic ambiguity to satisfactorily describe, explain or define the slippery concept of intent. The most common philosophic approach taken to the study of intentionality is ontological or metaphysical in nature and views intentionality as a predominantly mental act. Arguments are mainly concerned with the conscious awareness of one's own intent and the subsequent relationship between intentions and actions (Aquila, 1977; Ross, 1978 and Griffin, 1978).

Within this context, Meiland (1964) draws the useful distinction between purposive and nonpurposive intentions as well as conditional and non-conditional intention. Both categories of intent suggest that time, symmetry and congruence are integral components of intention. Kramer (1978) utilizes the concept of control to explain which actions are intentional. In communication, people have a battery of sociokinetic verbal and nonverbal powers which they use to increase status, influence, persuasion, attraction and trustworthiness, and do intentionally or unintentionally control others. Whether such control is used to help or to injure is a moral issue.

Lowe (1978) offers the proposition that in any relationship intentionality has moral dimensions. He suggests receivers tend to judge sender's actions as blameworthy and malicious, when they are perceived as intentional. Injustice is seen to occur not so much because some basic need is not being met, but rather the injustice lies in the perception that a person is intentionally exploiting a situation that prevents or deprives satisfaction of needs.

In contrast to ontological and metaphysical approaches, a phenomenological approach adopted by Matejeko (1975) helps explain another perception of intent, this time from the observer's point of view.

From the dialectical viewpoint, social life is first of all a process of becoming, not just of being. The human psyche is an active element and not only a passive receptor of an external world. ... Thought and activity penetrate one another. We ... impose our own order upon reality which in its true nature is chaotic and multidimensional. "The mind selects only certain characteristics of phenomena as significant; it finds cultural meaning in only a segment of reality; it falsifies the world at the very least by omission. Culture, then, turns upon the mind and perpetuates the illusion" (Matejeko, 1975. p. 11).

Two key assumptions are made by Matejeko that underpin the rationale for much of this study. First, people have only a limited capacity to process the reality around them. Second, because of this limitation, people must be selective about what messages they decide to process, and that tends to be a culturally learned perceptual behavior. This dialectical approach has its roots in Karl Mannheim's sociology of knowledge with its theme of social relationism (Berndt and Berndt, 1973). This idea of perceiving 'where one stands' in the social hierarchy is seen as a determining factor in social action and commitment, and supportive of the notion of perceived relationships and intent (Sarbaugh, 1979), a concept central to this study.

The related theory of cultural relativism (Herkovits, 1949; Benedict, 1934; and Whorf, 1967) supports this study's conceptualization of the classroom as a miniculture with its own set of rules and norms that influence how instructors and learners interact with one another. It is a situation where conflicts can occur if a new learner is not made aware of the intent behind certain instructor behaviors which may be unfamiliar or puzzling to the learner.

In summary, philosophic writings have typically approached the concept of intent by stressing its mentalistic dimension. There is a preoccupation with how individuals form intentions or control their intentions in

the role of actor. The arguments are eloquent, and the logics complex and sophisticated. Invariably, their arguments overlook the fundamental distinction of people being both an actor and observer (Thomas and Pondy, 1977).

While there is a clear distinction between acting and observing, the distinction between thought and action or between mentalistic states and behavioral responses, is problematic. However, these unresolved issues do not refute the notion that a person as actor can be forming intentions while controlling the verbal and nonverbal behaviors to which others may attribute certain intents. In the role of observer, one also simultaneously processes vast amounts of feedback to make continual judgements about the intent others have toward them.

LAW AND INTENT

Legal precedents provide a useful guide to how the concept of intent can be successfully defined and utilized within context specific situations dealing with human relationships. Interpretations of intent are dependent upon the context of the case to which it is applied. The conceptual framework of this study also provides an organizational structure to help understand the role intent plays in the instructor/learner relationship within the context of an adult education classroom.

An important operational distinction made in law, is that 'intent' and 'motive' are not one and the same thing.

'Intent', in its legal sense, is quite distinct from motive. It is defined as the purpose to use a particular means to effect a certain result. Motive is the reason which leads the mind to desire that result (Baker v. State, quoted in <u>Words and Phrases</u>, 1959, p. 14).

In general, there is legal agreement that intent can only be implied or inferred from expressions or conduct or both, when considered in the light of the given circumstances.

SOCIAL PSYCHOLOGY AND INTENT

Maselli and Altrocchi (1969), in a summary of research findings dealing with the attribution of intent; suggest that:

Attribution of intent, often observed in human interactions, is central to person perceptions and interpersonal relations and indirectly raises theoretical issues concerning the relevance of intentions. . . . Attribution of intent is alternatively described as a logical process of inference from cues or as a more intuitive process based on personal knowledge of one's own intentions. The internal-external dimension and individual coping techniques with motivational arousal are promising individual variables. Attribution of intent often contributes to perception of the social world as more predictable and to socially appropriate behavior but can also lead to behavior which is destructive to self and others (Maselli and Altrocchi, 1969. p. 445).

To make sense out of the complexities of human behaviors and make a person's environment more stable and predictable, people are generally held responsible for their behavior. Intentions are attributed to them in order to help explain the reasons for their behaviors. Nadel and Altrocchi (1967), Heider (1958a, 1958b), Jones and Davis (1965) and Bronfenbrener (1964) suggest that the attribution of intent is the essential link between observable acts and non-observable inferences about a person's disposition towards another person. In relationships where power or intimacy play an important role, one often observes extreme attributions of intent related to either great trust or great mistrust, often resulting in extreme consequences. Further, Nadel and Altrocchi (1967) found that hostile intent tends to be attributed to persons who represent privilege, achievement or advantage.

When applying these findings to the adult education classroom, it is plausible that when new learners are faced with a great amount of potentially confusing information or acts contradictory to their expectations, there might be a tendency to attribute blame to the most obvious cause of this discomfort or confusion, the instructor.

The process and logic employed in this type of attribution of intent appears to be based on the concepts of covariation, configuration and inference (Kelley, 1973).

The man in the street and the scientist share the same general approach to the interpretation of behavior. Both assume that B = f(P,E). Behavior is a function of the person and the environment. Thus behavior is assumed to convey information about both P and E. . .

An observer of a person's behavior can make judgments about several different (though interrelated) aspects of its meaning: (a) the positive or negative quality of the consequences of that behavior, (b) the specific nature of the motivation that underlies it (the P factor because

there is always some kind of P involvement), and (c) the main type of cause(s) involved in the behavior (the allocation between P and E, the stability of the causal factors) (Kelley and Thibaut, 1978 p. 214).

This type of inferential logic, so often used by people in their everyday living and thinking (Schultz, 1951), is important in understanding how adults view the intent of their instructor in the early development of the instructor/learner relationship. Learners tend to make inferences about the intent of the instructor based on unfamilar situational or communication cues and on the false assumption that the instructor should think and act in the same way as the learner.

Bar-Tal (1978) suggests that perceptions of intent in a relationship may well prove to be one of those causal dimensions that are used as excuses for success or failure in the learner's performance. However, studies drawn by DeCharms et al. (1965) and Maselli and Altrocchi (1969) make the distinction that people differ in the degree to which they attribute intent to others, and in the degree to which intention is attributed to them.

Thomas and Pondy (1977) note the relative neglect of addressing the conflict management activities of the principal parties themselves. This appears to be a legacy of behaviorism and experimental gaming where intentions, feelings, attitudes or ideas simply accompany or follow behavior. They do not argue this theoretical orientation is invalid but for practical purposes it defines conflict management in such a way that it places the main parties in

a relatively primitive mode of interaction. The key to conflict management by principal parties is to understand the role of higher mental processes during an interaction. The role of attributed intent is central within any conflict episode:

. . . attribution of other party's intent is a central activity in conflict episodes, and that these attributions play a crucial mediating role in shaping each party's reactions to the other's behavior -- specifically mediating hostility and retaliation (Thomas and Pondy, 1977. p. 1089).

Their study of attribution data from executives, indicates that there are strong biases in the perception of intent. Individuals tend to see themselves as cooperative and reasonable while they tend to attribute competiveness or unreasonableness to the other party. Each party in this potential conflict situation acts as both observer to discern the other's intent, and as actor to manage the other's impressions of their own intent.

The Thomas and Pondy (1977) model is based largely upon attribution theory applied to a management situation, but it does not address the dynamics of interaction that clarify the specific processes used to perceive or manage the communication of intent.

COMMUNICATION AND INTENT

Ekman and Friesen (1969) operationalize intent in terms of the deliberate use of nonverbal acts to communicate a message to another person. While their schema focuses on inferences about the sender's mentalistic state it does not address the behavioral responses to feedback from the receiver.

On the other hand, Schmuck and Schmuck (1971) conceptualize a reciprocal communication process based on personal intent. Communication is seen as emanating from individual needs, motives and desires and involves sending messages about personal intent, whether they are concerned with control, information, love or anger. Effective communication exists between two people when the receiver interprets the sender's message in the same way the sender intended it. Congruence of message is dependent upon the matching of intentions, behaviors and interpretations.

Figures 1 and 2 illustate the crucial role intent plays in understanding miscommunications that occur during interpersonal transactions. It is a situation when the message received does not accurately reflect the intentions of the sender. For example, when persons, intentionally or unintentionally, attempt to impress, they set the stage for distrustful communication. While attempts to impress are not an unnatural human phenomenon, it tends to encourage further superficiality and concealment, defensiveness, justification or falsification to keep 'face'.

MacKay (1972), has also developed a model of intentionality using the two extremes of goal-directed communication and non goal-directed communication, as illustrated in Figure 3.



FIGURE 1

POSITIVE CYCLE OF INTERPERSONAL RELATIONS (Schmuck and Schmuck, 1971. p. 52)

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FIGURE 2

NEGATIVE CYCLE OF INTERPERSONAL RELATIONS (Schmuck and Schmuck, 1971. p. 53)





MACKAY'S MODEL OF INTENTIONALITY (MacKay, 1972. p. 24)

Tubbs (1978) uses a four cell matrix that illustrates the ease by which even the most unintentional message can be misinterpreted. Figure 4 clarifies Tubbs' model.

Intentional

Unintentional

Verbal	Verbal Intentional	Verbal Unintentional
Nonverbal	Nonverbal Intentional	Nonverbal Unintentional

TUBBS' MODEL OF INTENTIONAL AND UNINTENTIONAL COMMUNICATION (Tubbs, 1978. p. 3)

McMahan (1976) sees verbal and nonverbal communication performing different but complimentary functions in person perception during social interaction. In his study, subjects receiving incongruent communication cues made more extreme attributions concerning a speaker's intentions than when communication cues were consistent.

Sarbaugh (1979) introduced the notion of 'perceived intent' as a more productive and manageable way to operationalize the concept of intent. Using a transactional analysis theoretical orientation, he approached the intent of interacting parties from introspection about his own intent in various situations. He identifies six categories of intent:

- To share experience, beliefs, feelings and materials.
- 2. To help with a task, including dealing with feelings and questions.
- 3. To ignore or avoid the other person, including messages.
- 4. To disrupt a transaction, or the efforts to establish interdependent activity.
- 5. To dominate the relationship through 'put downs' manipulating power, status, etc.
- To injure the other person or group physically, socially or psychologically. This would include attacks on status, integrity, self-concept, etc. (Sarbaugh, 1979. p. 33).

When two parties have the same positive intent in engaging in a transaction, the intent is more likely to be realized. Conversely, if intents are not the same, or both are negative, there is a fairly high probability that the intent of one and often both participants will be frustrated. The intent of the participants is more likely to be known if participants share a homogeneity of code system, world view, values, role expectations and other normative beliefs.

In most transactions, intent is not explicitly stated. It generally is inferred from prior and present cues emitted by the other party. The meaning derived from those cues then forms the basis for the 'perceived intent' which in turn sets the tone for the communication (Sarbaugh, 1979. p. 34).

Sarbaugh (1979) argues that there is an integral connection between perceived relationships and perceived intent.

PERCEIVED RELATIONSHIP AND INTENT

Sarbaugh (1979) suggests that one of the principle variables which determines degrees of commonality in any communication interaction, is the participants' perceptions of their relationship and intent. In his taxonomy, 'perceived relationship' is defined as including perceptions of feelings, goal orientation and the structural configuration of the relationship. 'Perceived intent' is operationally defined in three dimensions; intent to share or help, intent to ignore, or intent to disrupt, dominate or injure.

Baron and Byne (1977) support the notion that perceived intent is an integral component of the perception of any situation or relationship. They consider the process of social perception in three sections. First, nonverbal communication is presented as the main channel for understanding emotions and feelings, a position supported by Knapp (1978), Ekman, Friesen and Ellingworth (1972) and

Birdswhistell (1970). Second, the personality characteristics such as motives and intent are inferred from observed verbal and nonverbal behavior through the process of attribution. Third, impression formation occurs when diverse bits of information are combined and integrated to form a unified concept of a person. How one expresses impressions of this unified concept of self in a relationship is central to the Thomas and Pondy (1977) 'Intent' Model of Conflict Management, and the central concern of this study.

Most literature precedents agree that the perceived quality of a relationship is dependent upon the quality of interpersonal communication (Reckman and Goethals, 1973; Newcomb, 1956; and Kelley and Thibaut, 1978). The perceived quality of relationships is a topic of emphasis in both counselling, education and other helping service literatures. Little attention has been given to utilizing or operationalizing the concept of 'intent' in the forming, maintaining or repairing of helping relationships.

EDUCATION AND INTENT

In the literature of adult education, little emphasis has been placed on the differences between the way children and adults attribute intent and responsibility. As Piaget (1965) found, until approximately age ten, many children take the seriousness of an act's consequences into account rather than the actor's intentions, when attributing

responsibility. This view receives support from studies by Shaw and Sulzer (1964) and Walster (1966) who would suggest that adults, rather than children, pay far more attention to, and are held responsible for, acts that are perceived as intentional.

In a study examining the different ways adults and children perceive the power of negative emotional communications, Fernster et al. (1977) found that: 1) both adults and children perceived and communicated negative emotions accurately, 2) there was little difference between adults and children in the ability to express emotions, 3) adults perceived fear more accurately while children communicated fear more accurately, 4) adults communicated sadness more accurately than children and 5) there are developmental trends in the ability to accurately perceive verbal communications.

Givens (1978) suggests there is also a tendency for people to perceive more accurately and communicate negative nonverbal behaviors. Adult strangers, not linked by clear role relationships or expectations, tend to initially respond to one another with innate adversive rather than culturally learned affiliative signals: a situation not unlike the first meetings of adult education classes.

From a more traditional viewpoint, Steele (1970) uses a definition of intent that typifies how the concept is currently confined to the cognitive domain and expressed as behavioral outcomes of instruction:

A teacher's intents are the ideals and objectives he holds along with the outcomes he expects from whatever unit of instruction he teaches. Practices are his actions in relation to his students, including assignments and tests (Steele, 1970. p. 3371-A).

Fresburg (1980) points out that the study of intent in education has been confined to either educational philosophy or specification of behavioral goals. He shares a concern with Crittenden (1974) that although teaching is an intentional activity, under pressure from the experimentalists, purpose has tended to become a rather dirty word in psychology. By association, the notion of purpose also has been neglected in research on teaching (Fresburg, 1980. p. 39). Teachers too often intend something in their goal statements but do not necessarily attempt it. Fresburg (1980) sees the role of feedback in teaching as crucial in understanding whether a teacher's intentions have been understood.

The teacher functions with two controls. The first is his instructional plan of action, his intent. The second is his insightful and selfconscious interpretation of his own and his students' behavior gained through feedback (Hough and Duncan, 1970. p. 16).

Stake (1969) also considers 'goals', 'objectives' and 'intents' to be synonymous. His use of 'intents' includes the planned-for environmental conditions, the planned-for demonstrations, the planned-for content coverage, and the planned-for student behavior. His model illustrates the contingencies among intended antecedents, transactions and outcomes and identifies the congruence between intended and observed antecedents, transactions and outcomes. As shown in Figure 5 this 'intent' model considers contingencies between past, present and future intents, as well as judging their congruency against actual observations of behavior.



FIGURE 5

STAKE'S MODEL FOR PROCESSING OF DESCRIPTIVE DATA (Stake, 1969. p. 118)

Axinn (1974) argues that any meaningful conceptualization of education must take into account the essential function of the intent of teachers and learners. He suggests that the most practical base for categorizing educational activities is the intent of learners and teachers. It is his view "... that both (intent of learners and teachers) are essential to the educational process and that the importance of neither can be dismissed if the vital and central dynamic of that process is to be appreciated and preserved, let alone improved" (Axinn, 1974. p. 13).

Figure 6 illustrates Axinn's intent paradigm that shows a clear division between types of educational contexts and the subsequent intent of outcomes from both the teacher's and learners' perspective. He identifies educational outcomes as either intended or unintended and characterizes these according to the various educational systems: formal, nonformal, informal and incidental.

Sys	tems 'Teacher'' Perspective ''Learner'' Perspective	INTENDED	UNINTENDED	
	INTENDED	Formal (school) Non-formal (Out-of-school)	In-formal	
	UNINTENDED	In-formal	Batic (Incidental)	

FIGURE 6

THE FUNCTION OF INTENT IN EDUCATIONAL CONTEXTS (Axinn, 1974. p. 9)

Figure 7 shows how Farmer, Voravarn and Vorapipatana (1974) have utilized the concept of intent within a time frame of immediate, intermediate and ultimate consequences.



MODEL OF INTENT FOR PROGRAM EVALUATION (Adapted from Farmer et al.1974. p. 3)

FIGURE 7

Consequences of any action can be intended or unintended, as well as anticipated or unanticipated and can be judged as either positive, neutral or negative.

A theoretical model to determine the intention of professional people to participate in continuing education was developed by Grotelueschen and Caulley (1977), based on the work of Fishbein (1963, 1967), Fishbein and Coombs (1974) and Fishbein and Ajzen (1975). However the operational definition of intent does not clearly distinguish between 'motive' and 'intent'.

METHODOLOGICAL PRECEDENTS

The logical and empirical requirements for utilizing a systems perspective as a theoretical basis for this study were influenced by arguments posited by Monge (1977) and Rossiter (1977). Monge (1977) argues that systems theory is not one monolithic logical framework. He identifies four alternative ways to use systems theory to think about phenomena: open, closed, cybernetic and functional/ structural systems. Each alternative logical paradigm has a number of empirical requirements or criteria that must be consistent with the logical criteria.

In order to conceptualize any communication as an open system, Monge (1977) states the following logical conditions must be met: 1) Identification of the components of the system; 2) Specifications of relations in the system; 3) Determination of system behavior; 4)

Stipulation of the environment; and 5) Determination of the system's evolution. To measure or examine an open communication system in the real world, Monge (1977) further states that the following empirical requirements must be met:

- Measurement of all relevant variables at a given time, including inputs and outputs, thus measuring structure.
- 2) Measurement of the change in each variable as a function of all the others, thus measuring process (Monge, 1977. p. 23).

In the short term, the open systems paradigm offers a practical compromise and allows a plausible explanation for the particular system used in this study. In the long term, the open systems model provides flexibility for further integrating of subsystems into interrelationships that help gain a clearer perspective of the macrosystem (Rossiter, 1977).

The systems of analysis through which observations are carried out in a classroom setting have been comprehensively reviewed by Medley and Mitzel (1963), Webb et al. (1965), Bellack et al. (1966), Amidon and Hough (1967), Flanders (1970), Yee (1971), Rosenshine and Furst (1973) and Chanan and Delamont (1975). There seems general consensus that interaction analysis is an acceptable technique for capturing quantitative and qualitative dimensions of instructor verbal behavior in the classroom.

It is important to consider the methodological issues associated with the training of coders and the analysis of sequential interaction. Ned Flanders (1966)

sees problems of observer training and reliability as twofold:

First, converting men into machines, and second, keeping them in that condition while they are observing. The ideal observer team is a group of like-minded individuals who will respond consistently with the same category number when presented with the same communication events. The problem is twofold because once training has produced an acceptable level of reliability, it can still deteriorate due to the unending variety of judgments that arise and require consistent treatment. Apparently no system of training can anticipate all of the judgements that an observer will be required to make. Since most observer teams must maintain their reliability over periods of time, new judgments must be discussed so that all . . . observers treat them consistently (Flanders, 1966. p. 7).

SUMMARY

The preceding review of literature precedents examines the role 'intent' plays in human relationships. First, there is support for the belief that 'intentions' do exist and play a pervasive role in our mental lives. Whatever philosophical or theoretical orientations are adopted, there seems general agreement that most things we do are done with certain intentions or for certain purposes. While the importance of the role of 'intent' in human behavior is problematic and a recurrent issue, logical debate from ancient and medieval times to contemporary philosophers have argued for its existence.

Second, the concept of intent has dynamic and temporal dimensions. Philosophers such as Meiland (1964) and Anscombe (1966) describe a chaining or linkage of intent between the past, the present and the future. Attribution literature uses the terms 'motivations', 'behavior' and 'consequences' to explain the interpretive implications of intent (Kelly and Thibaut, 1978). Sarbaugh (1979) utilizes a temporal notion to explain perceived intent and relationships. In education, Stake (1969) uses the three dimensions of intended antecedents, intended transactions and intended outcomes. Farmer et al. (1974) makes use of the concepts of anticipated and unanticipated intents, judged on a time continuum of immediate, intermediate and ultimate consequences.

Third, except for a few scattered examples, the concept of intent is viewed as a mentalistic or psychological state. There have been few efforts to explain the role of 'intent' in classroom interaction, although there appears to be growing interest in the concept. The precedents of Law provide the most fruitful directions for usefully distinguishing the notion of intent from motives, promises, attempts and other related concepts (<u>Words and</u> Phrases, 1958).

Fourth, in communication literature, the notion of a person sending out nonverbal and verbal messages that are goal-directed and non-goal directed has become axiomatic. That is, communicatioon is either intentional or unintentional (Ekman and Friesman, 1969; Tubbs, 1978). A growing body of literature, particularly the Thomas and Pondy 'Intent' model (1977), the 'Personal Intent' model of

Schmuck and Schmuck (1971) and the 'Perceived Intent' aspect of Sarbaugh's Intercultural Communication Taxonomy (1979), acknowledge the reciprocal role between actor and observer when communicating intent. The dual role of a person functioning as both actor and observer to manage impressions of intent and to discern other's intent, is not refuted in the literature precedents. This fundamentally different perspective of examining the activities of the principal parties used to discern or manage intent seems to have been ignored in most of the precedents reviewed. However, this view of an instructor intentionally carrying out some plan of action as actor, and then interpreting his own behavior and the learners' behavior as observer through feedback, is supported by Hough and Duncan (1970), Fresburg (1980), Thomas and Pondy, (1977).

Fifth, methodological precedents in the literature of education and communication provide a research tradition for studying communication in natural classroom settings and lay a foundation from which to observe and describe an instructor's verbal management of intent. The key methodological precedents in education used in this study included: Medley and Mitzel (1963); Webb et al. (1965); Bellack et al. (1966); Amidon and Hough (1967); Litwack et al. (1968); Flanders (1970); Yee (1971); Rosenshine and Furst (1973); Chanan and Delamont (1975) and Frick and Semmel (1978). Key precedents in communication methodology included: Guetzkow (1950); Ellis (1977); Hirokawa (1980) and

Donahue et al. (1981).

The precedents in literature reviewed in this chapter have formed a logical theoretical basis for the design, development and field testing of the conceptual framework, classification scheme and measurement technique of this study. A description of the design of the study follows in Chapter 3.

Chapter 3

DESIGN OF THE CONCEPTUAL FRAMEWORK

The purpose of this chapter is to describe and explain the design of the conceptual framework developed for the first phase of the study. A systems approach is used to illustrate how an instructor's verbal management of intent is only one component of the reciprocal communication process between learner and instructor in the adult education classroom.

The chapter is organized into three sections: 1) Theoretical Orientation; 2) Development of a Classification Scheme for Measuring an Instructor's Verbal Management of Intent; and 3) Design of a Coding Technique.

THEORETICAL ORIENTATION

Fundamentally, general systems theory is the science of organizing and of organization. A basic function of utilizing a systems approach is to conceive difficult concepts in terms of wholes and begin to understand the function of its interrelated parts (Ruben, 1972).

Identifying the Parts of the System

In this study, the 'whole' was the understanding of the concept of communication of intent in the adult education classroom. The 'interrelated parts' are

as follows: 1) the instructor's perception of verbal and nonverbal messages; 2) the instructor's verbal and nonverbal management of intent; 3) the learners' perceptions of verbal and nonverbal messages; and 4) the learners' management of verbal and nonverbal messages of intent. The particular 'part' that was of interest to this study is the instructor's verbal management of intent in the instructor/ learner relationship.

In order to meet the logical conditions and empirical criteria set by Monge (1977) for using an open systems approach, and to meaningfully describe the system under study, the communication system framework advocated by Ruben (1972) was adopted. Figure 8 was originated to illustrate that an instructor's verbal management of intent is only one subsystem in a complex circular process of communicating intent. A more detailed explanation of the complex interdependence of these communication processes is provided in Appendix A.

DEVELOPMENT OF A CLASSIFICATION SCHEME FOR MEASURING AN INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT

The Thomas and Pondy (1977) schema for the management of intent was used as the foundation for the classification scheme developed for this study. It was selected because it accurately reflected many of the verbal activities used by instructors to manage intent in a classroom setting. Changes were demanded of this schema when it was taken out of the business and industry setting

THE ENVIRONMENT: Adult education evening college classrooms of a metropolitan region in Australia

BOUNDARIES TO THE SYSTEM: Communication in adult education classrooms SUPRASYSTEM: All verbal and nonverbal communication of intent



LEVEL OF ANALYSIS: System 2 and a component of Subsystem B (

FIGURE 8

COMMUNICATION OF INTENT: AN OPEN SYSTEMS MODEL

and adapted to the adult education classroom.

A Schema for Managing Impressions of Intent

Thomas and Pondy (1977) classified into five main activities the verbal behaviors used to manage intent. These were: Scanning, Explaining, Preparing, Excusing and Repairing and are outlined in Figure 9.

ACTIVITIES	SAMPLE STATEMENTS
Scanning	"Is anything wrong?" "What's your reaction to that?"
Explaining	"What I meant to say" "I think you misunderstood"
Preparing	"I regret having to do this." "Unfortunately, circumstances require "This is nothing personal."
Excusing	Unintentional "It was an accident." "I have no idea that" <u>No Alternatives:</u> "I was forced to" "I had no choice." "It was unavoidable." <u>Legitimate:</u> "You deserved it." "We were only protecting ourselves."
Repairing	<u>Apologies</u> : "We were in error." "I am sorry." <u>Penance:</u> "Please accept this" "Let us make it up to you." "What can I do?"

FIGURE 9

MANAGING IMPRESSIONS OF OWN INTENT (Thomas and Pondy, 1977. p. 1098) This schema, entitled 'Activities by the Actor for Managing Impressions of Own Intent' is part of an 'Intent Model of Conflict Management Among Principal Parties'. It takes a fundamentally different perspective from those generally adopted in conflict literature.

Thomas and Pondy (1977) see the key to managing conflict between principal parties is to understand the role of higher mental processes during a conflict episode. The role of one of these cognitive activities, the attribution by each party of the other's intent, is the central construct of their schema for managing impressions of one's own intent in a relationship.

They make a distinction between each party's role in managing conflict, a viewpoint overlooked by most literatures on intent. They distinguish between each party's role as both actor and observer. As actor, each party is viewed as attempting to manage the other party's impression of one's own intent. As observer, each party is seen as attempting to discern the actual intent of the other. Accepting the attribution of hostility as a given, the Thomas and Pondy (1977) schema focuses upon the activities which are directed towards clarification and influencing attributions of intent.

In summary, the Thomas and Pondy (1977) schema assumes people avoid giving the impression of intentionally harming others, or impressions which would likely generate hostility and retaliation, and so damage a relationship.

Modifications to the Thomas and Pondy Schema

The five verbal activities of the Thomas and Pondy (1977) schema shown in Figure 10 fall into two naturally occuring verbal activities used by instructors to manage their intent. First, a Proactive set of verbal activities which are used to avoid or minimize the learners'

	THOMAS & PONDY (1977)	FIRST MOI (19	DIFICATION 980) —	SECOND MO (19	DIFICATION 81)
		Classif.	Category	Classif.	Category
OACTIVE	Scanning	Assessing	-Scanning	Assessing	-Scanning -Requesting
	Explaining	Explaining	g-Preparing -Stating -Clarifying	Explaining	-Suggesting -Stating -Clarifying
PR	Preparing			Preparing	-Preparing
				Equalising	-Sharing -Regarding
REACTIVE	Excusing -Unintentional -Legitimate -No Alternat- ive	Excusing	-Unintent- ional -Legitimate -No Altern- ative	Excusing	-Unintent- ional -Legitimate
	Repairing-Apologies -Penance	Repairing	-Apology -Penance	Repairing	-Apology -Penance

FIGURE 10

MODIFICATIONS TO THE THOMAS AND PONDY (1977) SCHEMA

misinterpretations of the instructor's intent. Second, a Reactive set of verbal behaviors which are used by the instructor after an obvious communication breakdown has occurred, and the instructor attempts to excuse his action and repair the relationship. Figure 10 illustrates how the Thomas and Pondy (1977) schema was progressively modified and developed for this study.

Initially the schema was divided into four main classifications: <u>Assessing</u>, <u>Explaining</u>, <u>Excusing</u> and <u>Repairing</u> as shown in Appendix B. However, after the pilot study and the assessment by a group of expert panelists, the classification scheme was modified to include the two additional classifications of <u>Preparing</u> and <u>Equalizing</u>. Categories in the final schema were numbered 1 - 13 for ease of coding and manipulation of data. A category 13 was added to provide for the coding of utterances made by the learner. A complete summary of the final classification scheme and examples of common cues used by instructors to verbally manage intent are presented in Figures 11 and 12.

<u>Assessing</u>. The Thomas and Pondy (1977) classification Scanning was too inclusive for the classroom situation. An additional category <u>Requesting</u> was added to make up a new first order classification of Assessing.

This conditional form of questioning gives the learners the freedom to respond by affirming or disagreeing with what has been asked of them. There is some degree of learner control implied in this verbal message.

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CLASSIFICATION	CODE	CATEGORY	DESCRIPTION OF VERBAL BEHAVIOR
ASSESS [NG	1	SCANNING: As reaction to	ks for feedback about the learner's mental state and or understanding of the instructor's actions.
	2	REQUESTING: form of a re learner is f	Asks for information, action or understanding in the quest. Using this conditional form of questioning, the ree to disagree or reject the invitation or request.
PREPARING	3	PREPARING: A cation is no curs when th be easily mi learners, ad This may inc tension rele	ttempts to convince the learners that upcoming communi- t based on malevolent or arbitrary motives. This oc- e instructor anticipates that some future behavior may sunderstood or misinterpreted. To avoid upsetting the vanced ground work is given as a gesture of goodwill. lude statements of regret, time sequence indicants or ase in the form of humor, anecdotes or quotes.
EQUALISING	4	SHARING: Ind learner is s one down. T 'us' and 'ou 'We' message are not part	icates the relationship between the instructor and ymmetrical and based on equality - neither one up or he power of the instructor is shared by the use of 'we'. r' messages as well as self disclosure and empathizing. s that include the instructor but exclude the learners of this category.
	5	REGARDING: G reinforcemen ers, without politenesses	ives positive acknowledgement, encouragement, praise, t, agreement, acceptance or concurrence with the learn- rejection. Includes the use of common courtesies and to the learner. This may be a simple please or thanks
	6	SUGGESTING: and implies	Gives direction in the form of a suggestion or opinion autonomy of the learners with freedom for alternatives.
EXPLAINING	7	STATING: Giv purposes, go	es explanations or statements of the instructor's als, strategies, outcomes, reasons, objectives, etc.
	8	CLARIFYING: nal explanat instructor p	Restates, repeats or clarifies the instructor's origi- ion that may be misunderstood. It occurs when the erceives a communication failure or potential breakdown
EXCUSING	9	Excusing - U or behavior that it occu of awareness that the beh	NINTENTIONAL: Disclaims knowledge of a previous event that has frustrated the learner, and makes the excuse rred accidentally, through a misinterpretation or lack . The purpose of the excuse is to convince the learner avior was not meant to be malevolent or arbitrary.
	10	Excusing - L deliberate b malevolent o reasonable. to follow es	EGITIMATE: Defends past or present actions as being ut legitimate in the role of instructor to rule out any r arbitrary motive and show the action was fair and Includes excuses where there were no alternatives but tablished norms or rules.
REPAIRING	11	APOLOGY: Dir standing and demonstrate	ectly admits personal blame or error for a misunder- seeks forgiveness. It is a psychological sacrifice to the instructor's care and concern for the learners.
	12	PENANCE: Mak not enough. assistance t	es up for a wrong done to a learner when an apology is Directly offers a concrete form of additional help or o repair the relationship.
LEARNER	13	LEARNER: All be initiated tor's commun	learner communication with the instructor. This can by the learners or occur in response to the instruc- ication.

FIGURE 11

FINAL REVISION OF THE CLASSIFICATION SCHEME FOR AN INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT
CODE	CATEGORY	SAMPLE CUES
1	Scanning	Is that clear? Is anything wrong? Well? Do you understand? What's your opinion? What's your reaction to? Humm?
2	Requesting	Would you explain that for me? Could we have silence? Would you move forward? Could you tell me if?
3	Preparing	Unfortunately time has run out so First, What you said was one alternative but Next week Before I go on I should tell you
4	Sharing	We Our with us. ("we" messages) When I went to college (self disclosure) I think I know how you feel. (empathizing)
5	Regarding	Good. Mmmn. Yes. Fine. O.K. Go on. That's clear. Could be. Maybe. That was kind of you. Please Thankyou. Good morning.
6	Suggesting	Perhaps you might I think you could use a pencil or pen. The field trip could include
7	Stating	The purpose of this course is This means The reason this is included is Take only six.
8	Clarifying	What I meant to say was I need to go over that again Let me repeat that That is, on Friday In other words To rephrase
9	Excusing Unintentional	It was an accident. I had no idea I wasn't aware Really, it wasn't meant that way.
10	Excusing Legitimate	I have no choice but to It was unavoidable as The University requires It is my responsibility to insist As instructor I must.
11	Apology	I was wrong. I made a mistake. Forgive me. Sorry. I apologize. It was my fault.
12	Penance	Let me make that up to you by What can I do to Perhaps I could repair my blunder by
13	Learner	* (All learner communication with the instructor)

FIGURE 12

SAMPLE CUES TO ASSIST IN IDENTIFYING VEREAL CATEGORIES

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<u>Preparing</u>. At first, the Thomas and Pondy (1977) classification of <u>Preparing</u> was seen as one specific type of an explaining activity and seemed better oganized as a category within the <u>Explaining</u> classification. However, after pilot testing it was apparent that instructors used the preparing behaviors so frequently that it was necessary to create a separate classification. It was found that the instructors often used humor, jokes, anecdotes, poems, stories and sequencing indicants to forewarn the learners that upcoming communication would not be based on malevolent or arbitrary motives. These unique ways of laying the groundwork to avoid upsetting learners did not fall neatly within the classification of Explaining.

Equalizing. After the pilot test, the classification of Equalizing was added to the scheme. Informal conversations with adult learners indicated their need for an empathetic instructor who would not talk down to them. This empathy aspect of a relationship is described by Rogers (1969) in terms of unconditional positive regard. The simple acceptance of learner responses without rejection, the extending of basic courtesies and selfdisclosure (Kossen, 1975) by the instructor was seen as an activity to equalize the power in a relationship. In the pilot test, it appeared that the 'most effective' instructors used identifiable communication behaviors in an effort to make the relationship appear more equal. That is, neither one up or one down.

Two categories make up the classification Equalizing. First, the Sharing category indicates the relationship between instructor and learner is symmetrical with the interaction based on equality. The power of the instructor is shared by the use of 'we', 'our', 'us' messages, as well as the use of self-disclosure. Second, the category <u>Regarding</u> incorporates the use of positive praise or the extending of courtesies or politenesses normally accepted in society such as a simple 'please' or 'thankyou'. It also includes the instructor's positive regard or acknowledgement of learners' responses through agreement, acceptance or concurrence so as to avoid rejecting their ideas as worthless.

The addition of this classification and its two categories weakened the original classification scheme by reducing its previous simplicity. Both categories in the final <u>Equalizing</u> classification are not discrete. All other categories used in the scheme are discrete categories. Both the <u>Sharing</u> and <u>Regarding</u> categories can occur on their own, but more frequently were found to occur as an integrated part of the message of another category in the scheme. For example, the utterance: 'Could you <u>please</u> move to the front of the room?', combines the categories of <u>Requesting</u> and Regarding.

While the Thomas and Pondy (1977) model of intent does not include the dimension of control as being important in a person's management of intent, it was found to play an

important and persuasive role in a learner's perceptions of the adult education instructor's management of intent. Thus these combination categories were incorporated in the new classification of Equalizing in the present scheme.

<u>Explaining</u>. The Thomas and Pondy (1977) classification of <u>Explaining</u> was found to be far too inclusive to adequately distinguish the various types of explaining activities typically used by instructors in the classroom. This classification was broken down initially into two separate categories of <u>Stating</u> and <u>Clarifying</u>.

The category of <u>Stating</u> accomodates the direct verbal explanation of an instructor's intent. This includes statements or explanations of educational purposes, goals, objectives, strategies or outcomes.

The category of <u>Clarifying</u> was added to differentiate another type of explaining activity that is used to restate or clarify an original message that might have been misinterpreted or misunderstood. It occurs when an instructor perceives or anticipates a communication breakdown.

An additional category of <u>Suggesting</u> was also added after the initial pilot study as the 'most effective' instructors used suggestions when communicating in a ratio of about 4:1 to those instructors identified as 'least effective'. <u>Suggesting</u> is conceptualized as giving a direction in the form of an opinion or recommendation. This indirect form of explaining implies autonomy for the

learners as the suggestion is phrased in a conditional form. Freedom for learner response is implied as an alternative response can be offered by the learners. The words 'perhaps', 'might', 'could', and 'would' identify <u>Suggesting</u> utterances.

Excusing. The post hoc excusing of behavior which Thomas and Pondy (1977) describe in terms of <u>Unintentional</u> Excusing, <u>No Alternative Excusing</u> and <u>Legitimate Excusing</u> were more specifically operationalized, but without substantive changes in the concepts. After the pilot study, it was found that coders had difficulty in distinguishing between the <u>No Alternative</u> and <u>Legitimate</u> examples of the <u>Excusing</u> categories. As these categories were infrequently used in the classroom situation, the two categories were collapsed under the category Excusing - Legitimate.

<u>Repairing</u>. The repairing of a relationship which has been damaged by the learner's misinterpretation of the instructor's intent is termed by Thomas and Pondy (1977) as <u>Apologies</u> and <u>Penance</u>. These categories were further operationalized for this study. The category of <u>Apology</u> includes verbal behaviors used to accept personal blame or error and ask for forgiveness. It is a psychological sacrifice to demonstrate the instructor's concern for the learner. The category of <u>Penance</u> includes verbal behaviors offering a more substantive form of instructor sacrifice when it is obvious an apology is not enough to repair the relationship. These distinctions were inferred by Thomas and Pondy (1977) but never specifically articulated. These two categories make up the final classification of <u>Repairing</u> in this study.

<u>Summary of Modifications</u>. The final nomenclature for identifying an instructor's verbal management of intent incorporated six classifications and twelve categories. As displayed in Figures 10 and 11, it includes: <u>Assessing</u> -<u>Scanning</u> and <u>Requesting</u>; <u>Preparing</u>; <u>Equalising</u> - <u>Sharing</u> and <u>Regarding</u>; <u>Explaining</u> - <u>Suggesting</u>, <u>Stating</u> and <u>Clarifying</u>; <u>Excusing</u> - <u>Excusing Unintentional</u> and <u>Excusing</u> <u>Legitimate</u>; and <u>Repairing</u> - <u>Apology</u> and <u>Penance</u>.

A further category <u>Learners</u> was added to allow examination of the interaction between instructor and learners. It includes communication with the instructor that is initiated by the learners as well as the learners' responses to the instructor's communication. To ignore learner communication would be violating the interactive nature of any communication process.

DESIGN OF A CODING TECHNIQUE

A coding technique was designed to record and analyze the frequency and sequence of utterances incorporated in an instructor's verbal management of intent. To field test this technique, audio-tapes were made of thirty two instructors' verbal communication during their initial lesson and the tapes of the five 'most effective'

and the five 'least effective' instructors were then transcribed and coded. This transformation of qualitative data into quantitative data involved two operations. First, the transcripts of each instructor's communication were separated into utterances. Second, a category code was assigned to each utterance.

To assist coders in more accurately conceptualizing and recording their perceptions of the categories, a number of recognition rules were developed as criteria for breaking up transcripts into segments (unitizing) and then assigning a category or combinatiion category to each segment (categorizing). These rules are described in Appendix C.

Design for Selecting Groups of the 'Most Effective' and 'Least Effective' Instructors

A learner response form, based on the Anderson and Anderson rating scale of initial rapport (Anderson and Anderson, 1962) was adapted and refined during the pilot test. It served as a criterion measure to identify from thirty-two instructors sampled, the five instructors 'most effective' in managing their intent, and the five instructors who were 'least effective' in managing their intent. It was assumed that instructors who were successful in establishing adequate classroom rapport or 'ideal relationships', would also have been seen by their learners as well-intentioned. The converse would be true for those instructors who were 'least successful' in establishing rapport with their learners.

The Anderson and Anderson (1962) rating scale of initial rapport was the most reliable and valid instrument available to measure 'ideal relationships'. It reflects observable communication behaviors within relationships which are conceptually consistent with the management of another's perceptions of intent. It also is a more appropriate and simpler measurement tool than the Barrett-Lennard Relationship Inventory (1962) which is more reliable in measuring 'something of the adequacy of certain kinds of important relationships' (Lake, Miles and Earle, 1973). The Instructional Process/Environment Ouestionnaire (Pratt, 1979) which was developed especially for use in adult education classrooms was rejected for lack of sufficient validation or proven reliability. Details of the development of the student rating scale are provided in Appendix D.

Design for Recording and Transcribing

To record an instructor's verbal management of intent a microcassette audio tape was made of the first hour of the initial lesson for each instructor sampled. Since the coding technique was designed to analyze the content component of an instructor's verbal message, the use of an audio tape eliminated the nonverbal communication channel. Further, typed transcripts eliminated paralinguistic cues that might distract coders from the content of the message. Details of procedures used for recording are described in Appendix E.

Audio tapes were transcribed, the transcription independently checked for errors, typed and proof read. Special attention was paid to punctuation and appropriate paragraphing. Procedures for transcribing tapes are described in Appendix F.

Design for Coding Categories and Combination Categories

The first twelve categories in the classification scheme in Figure 11 define the functional behaviors that an instructor employs to verbally manage his intent. Category thirteen defines any learner verbal interaction with the instructor. For ease of coding, each of the thirteen categories were designated a corresponding arabic number from 1 to 13.

All categories, except for the categories of <u>Sharing</u> (category 4) <u>Regarding</u> (category 5) are mutually exclusive and were defined so only one event could be coded at any one time. The two categories <u>Sharing</u> and <u>Regarding</u> can occur as separate events as well as concurrently with all other categories except themselves and category 13. For example, an instructor's utterance '"Joe, what's wrong?'", is first coded as <u>Regarding</u> (category 5) because the instructor acknowledged the learner by name. However, the utterance is a question that seeks information about the learner's mental state and is therefore also coded as <u>Scanning</u> (category 1). In this case, two categories occurred concurrently in the same utterance so the coder would combine the category numbers and form a new combination category of 51.

For uniformity of coding, when category 4 or category 5 are combined with any other categories, the 4 or 5 category always precedes the other category in the combination. This creates twenty-two possible combination categories. They are: 41, 42, 43, 45, 46, 47, 48, 49, 421, 411, 412 and 51, 52, 53, 54, 56, 57, 58, 59, 510, 511, 512.

The total number of discrete categories or combination categories that can be derived from the final coding technique is thirty-five. That is, thirteen major categories and twenty-two combination categories. These thirty-five discrete categories and combination categories are exhaustive and inclusive of all the possible instructor verbal communication of intent that takes place between an instructor and his learners.

Rules for Unitizing and Categorizing. To enable coders to identify the occurrence of a category or combination category, sample cues for each category were included as an addendum to the category definitions of the classification scheme. During the pilot test and with the assistance of the coding team, these rules were formulated and refined. A final set of recognition rules for unitizing and categorizing, along with procedures for unitizing and categorizing transcripts are described in Appendix G.

Validity of the Coding Technique. To enhance the validation of the conceptual framework, classification scheme and coding technique developed for this study, two

procedures were adopted. First, a reaction panel of six experts were invited to act as external judges and offer feedback on its sufficiency and appropriateness. Second, to gain a measure of predictive validity in a field test, the application of the coding technique should show that substantial differences exist between the frequency or sequences of utterances used by instructors who are the 'most effective' verbal managers of intent and those who are 'least effective'.

Design for Analysis and Display of Coded Data

The functional utility of the coding technique is dependent upon its potential to assist in the collection, tabulation and interpretation of utterances or utterance sequences which recur or combine in a variety of ways. The following procedures were designed to assist in the meaningful analysis of coded data.

Tabulating and Recording. Transcripts were coded, the coding recorded on tally sheets and keyed into a microcomputer in sequences of 80 utterances. A display screen with a capacity for eighty characters allowed visual checking while entering code numbers. The entire sequence of coded utterances was printed by the computer and checked for errors.

A suite of six microcomputer programs were used to assist in the tabulation, display and analysis of data. The first computer program was used to input and print the

entire sequence of coded utterances used by an instructor. A sample of a tally sheet and a printout are shown in Appendices H and I respectively.

A second program was used to edit the sequence of coded utterances and allowed alterations, deletions and insertions to be made. The remaining four programs printed frequency reports of instructor utterances, paired utterances or sequences of three utterances.

1. Frequency Reports

The third program printed a statistical summary of utterances used by an instructor. The statistical summaries for the 'most effective' and the 'least effective' groups were also analyzed to calculate an aggregate summary for each group. A statistical report for each instructor shows the frequency and totals for classifications, categories and combination categories as well as percentages for categories and combination categories. A sample Frequency Report is shown in Appendix J.

2. Sequence Reports of Paired Utterances

The fourth program calculated and printed a report of all utterance pairs used by an instructor. Aggregated summaries for more than one instructor were also printed. This matrix provides a display of a possible 1925 pairs which the 35 category coding scheme can produce.

The matrix consists of 35 rows and 35 columns. Rows are read horizontally on the matrix and columns are read

vertically. Each of the 35 rows and columns correspond to one of the 35 major categories or combination categories of the coding technique. Each row represents a first utterance, and each column the succeeding utterance. The utility of pairing utterances in a sequence of dialogue is shown in Figure 13.

Coded Transcript:

5 7 13 "Good girl./ Take that up slowly./ (Learner responds)/ 7 8 Don't go too fast,/ because if you go too fast it will 51 13 break./ John how are you going?/ (Learner responds)/ 11 9 Sorry,/ didn't mean to disturb you."/

Paired Utterances:

lst _, pair		3rd pair		5th pair		7th pair		
	-	ک ے		\sim		لمہ ا		
5	7	13	7	8	51	13	11	9
	2nd pair		4th pair		6th pair		8th j	pair

FIGURE 13

PAIRING UTTERANCES IN A SEQUENCE

As illustrated in Figure 13 the sequence in the coded transcript is represented by a series of code numbers that are read from left to right. To form a paired sequence, each code number is used twice, except for the first and last numbers which are only used once. In the above sequence, nine category codes or combination category codes were used to form eight pairs. As in the matrix design that uses this method of pairing, there will always be 'n-l' pairs from 'n' major category or combination category codes.

3. Sequence Reports of Three Utterances

The fifth and sixth programs identified and printed the frequency of predecessors and successors of selected utterance pairs. An utterance pair from a two-way summary may be chosen for analysis only if its frequency of occurrence is at least one percent of the table total. To find the frequency of predecessors or successors of just one utterance pair at a 1% threshold involves a search of a 35 x 35 x 35 matrix and its 42,875 possible combinations of a sequence of three utterances. A sample Sequence Report of Three Utterances is shown in Appendix K.

Interpretation of Matrices. First, if two or more matrices have unequal total frequencies, selected tally totals for cells of the two-way matrices are converted into percentages. This allows comparisons between various categories used by instructors to verbally manage their intent. Composite matrices of a number of instructors can also be compared using this method.

Second, inferences about often used sequences of utterances are made. By understanding the relationship between the rows and the columns, probability statements are made about what precedes or what follows a paired category of interest. Using procedures to analyze matrices suggested by Flanders (1970) and Ellis (1977), flow diagrams of utterance sequences, based on matrix data, are identified.

Third, the matrix is used to identify cells of interest in which there is a heavy concentration of tallies, as well as cells in which there are no tallies.

Fourth, as the tallies in the matrices represent frequencies or proportions of nominal data, statistical tests for data analysis are limited to nonparametric techniques as suggested by Siegel (1956), Flanders (1970) and Ellis (1977). They suggest the chi square statistic is an appropriate procedure for use with matrices of frequency data which represent contiguous states. Chi square tests for goodness of fit or as a test of independence are employed to determine whether: 1) the frequencies of utterances and utterance sequences used in one part of an instructor's lesson differ significantly from another part of the same lesson; 2) the frequencies of utterances and utterance sequences used by instructors identified within a homogeneous group are similar to one another; and 3) the frequencies of utterances and utterance sequences between instructors who are 'most effective' managers of their intent are different from those who are 'least effective' managers of their intent. Cochran (1954) and Mimball (1954) provide procedures for the correct partitioning of chi square contingency tables to help find specific sources of variance.

Design for Reliability and Validity of the Coding Technique

In order to assess the reliability and validity of this newly developed coding technique, a number of strategies were adopted to establish if the coding technique: 1) could be learned and applied with consistency between independent coders; 2) could be judged by a panel of experts to have content validity; and 3) could show that significant differences exist between the frequency of sequences of utterances used by instructors who are 'most effective' or 'least effective' managers of intent.

Coder Reliability. The issue of being able to use this coding technique with reliability is crucial to the study. Frick and Semmel (1978) suggest a number of practical means for minimizing intercoder error. Coders should reach nearly perfect agreement on unambiguous examples with the expert coder before actual data collection. Coders should also be expected to reach agreements on ambiguities that might arise in coding. They emphasize:

Criterion-related and intraobserver agreement measures have been recommended for both before and during a study, but these measures should not be used as evidence of observer agreement in the actual classroom. Rather, these are measures to assist an investigator in documenting adequacy of observational skills. The purpose of such efforts is to minimize the possibility that observers are primarily responsible for potentially unreliable observational data.

Ellis (1977), argues that the critical issue is that only a coding scheme that can be learned and applied with

. 69

consistency is reliable. He identifies four sources of poor reliability:

The first three are research design such as inadequate data sampling; poor training of observers; and the coding scheme itself (e.g., too few categories, poor category definition). The fourth problem area is statistical tests for reliability. (Ellis, 1977. p. 12).

Ellis (1977), Hirokawa (1980) and Donohue et al. (1981), argue for the superiority and appropriateness of Guetzkow's estimate of reliability with sequential interaction data. Guetzkow's (1950) formulae are straight forward procedures for calculating unitizing and categorizing reliability coefficients. As well, they take into account the complexity of the coding scheme and the degree to which coders agree with each other.

To ensure the coding technique was learned and applied with consistency between independent coders, Guetzkow's (1950) procedures for estimating unitizing and categorizing reliability were adopted. These estimates for unitizing reliability provide a measure to compare how often independent coders make errors when dividing up the same transcript into utterances. For example, a page of a transcript may be divided into utterances at different points such that the total utterances obtained for each coder are equal in number, but the utterances may not be coterminous. As well, two coders may end up with a different number of utterances if one coder regards a given sentence as containing two or more utterances while the other coder regards the same sentence as only one utterance.

An explanation of Guetzkow's (1950) formula for calculating the reliability of the unitizing process is included in Appendix L.

To ensure agreement among coders when assigning category codes to utterances, Guetzkow's (1950) procedure for estimating categorizing reliability was used. This was based on the assumption that dividing a transcript into utterances is independent of the subsequent assigning of a category code to each utterance. The procedure for calculating the reliability of categorizing requires the use of two formulae as shown in Appendix M.

Guetzkow (1950) argues that for practical purposes, "experimenters need not have more than 150 units of qualitative material classified by two coders to obtain stable estimates of the probability with which each unit is classified correctly" (Guetzkow, 1950. p. 54). He concurs with Frick and Semmel (1978) that periodic checks of masses of up to 150 utterances are needed to ensure coding standards are being maintained.

For this study, acceptable intercoder coefficients between independent coders were set at the .95 level when computing unitizing reliability and .80 for categorizing reliability.

SUMMARY

The purpose of this chapter was to describe and explain the conceptual development and design of the

theoretical framework, classification scheme and coding technique. The direction of explanation moved from general theoretical issues to the specific operational definitiions of the categories used to measure an instructor's verbal management of intent in the instructor/learner relationship. The three sections included the: 1) Theoretical Orientation; 2) Development of a Classification Scheme for Measuring an Instructor's Verbal Management of Intent; and 3) Design of a Coding Technique.

In the following chapter, Methodology of the Study, the procedures employed during the six major phases of this study are described. These include the procedures followed from the development of the initial draft of the coding technique through to its final field testing.

CHAPTER 4

METHODOLOGY OF THE STUDY

In this Chapter the methodology employed in each of the six major phases of the study are described and explained. The phases were: 1) the development of an initial draft of the conceptual framework, classification scheme and coding technique; 2) a pilot test to establish the adequacy of the classification scheme and the feasibility of the tentative coding technique; 3) the content validation of a second draft by a panel of experts; 4) final modifications based upon the feedback provided by the panel of experts; 5) the training of a group of coders to learn the classification scheme and apply the coding technique with reliability; and 6) the field testing of this technique.

PHASE 1

DEVELOPMENT OF AN INITIAL DRAFT OF THE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE

A tentative classification scheme and coding technique were developed and shared with a number of American adult education practitioners. The resulting reactions indicated the need for modification of the coding procedures and use of an event sequential approach.

PHASE 2 PILOT TESTING TO ESTABLISH THE ADEQUACY OF THE CLASSIFICATION SCHEME AND FEASIBILITY OF THE CODING TECHNIQUE

On returning to Australia, a pilot study was conducted in order to: 1) establish the adequacy of applying the classification scheme to a natural classroom setting; 2) establish if acceptable intercoder reliability coefficients could be reached between the researcher and a colleague in its use; and 3) refine the data gathering procedures and to test the adequacy of the instruments to be used in the field test.

Seven procedural steps were followed during the pilot study. These were: 1) selecting the participants for the pilot study; 2) protecting the anonymity of participants; 3) testing the suitability of microcassette recorders; 4) transcribing and typing of transcripts; 5) establishing the adequacy of a student response form; 6) establishing acceptable intercoder reliability coefficients using the coding technique; and 7) thanking participants in the pilot study (see Appendix N for a summary of these procedures).

The pilot study achieved three objectives. First, it was established that with modifications, the classification scheme could be applied to a natural classroom setting. Second, acceptable levels of intercoder agreement were reached between two independent coders when using the tentative coding technique. Third, the following data gathering procedures or instruments were tested and refined: 1) a microcassette recorder that produced quality one hour audio-tapes was selected and recording procedures were established; 2) procedures for transcribing were developed; 3) the modified Anderson and Anderson (1962) learner response form was adapted for the Australian classroom setting and its use as an adequate criterion measure to distinguish instructors who are 'most effective' and 'least effective' in establishing rapport with learners was achieved; and 4) procedures for the selection of participants, protection of their anonymity and follow up correspondence were established.

PHASE 3

THE CONTENT VALIDATION OF A TENTATIVE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE

Upon completion of Phases 1 and 2, a second draft of the conceptual framework, classification scheme and coding technique was constructed. To enhance the content validation of this second draft, a reaction panel of experts were selected and invited to provide feedback on its adequacy.

A panel of six persons were invited to carry out three tasks: 1) to respond to specific questions about the clarity, relevance, format and examples provided in each of the classifications of the scheme; 2) to respond to a number of general questions regarding the overall strengths and weaknesses of the classification scheme and coding technique; and 3) to make any general recommendations to improve the overall quality of the conceptual framework, classification scheme or coding technique.

Appendix O provides a summary of the criteria and procedures used to select the panelists, as well as a description of the tasks they were requested to carry out.

T PHASE 4 FINAL MODIFICATIONS TO THE CONCEPTUAL FRAMEWORK, CLASSIFICATION SCHEME AND CODING TECHNIQUE

Feedback elicited from the panel of experts provided critical insights into the strengths and weaknesses of the second draft of the conceptual framework, classification scheme and coding technique. An attempt was made to achieve consensus for each question posed and for the general comments made by the panelists. The major changes made to the second draft as a result of this feedback are described in Appendix P.

PHASE 5 TRAINING OF A CODING TEAM

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In this crucial phase of the study, acceptable levels of intercoder agreement had to be achieved before commencement of the field test. A number of people not initially aware of the research purposes had to learn how to break down sections of speech into units and code them according to the classification scheme. Each coder had to work independently and obtain intercoder agreement around the .80 level. Five major tasks were undertaken in this phase of the field test: 1) identifying persons for the coding team; 2) preparing a training schedule; 3) training of coders; 4) coding of field test transcripts and remedial training and 5) bringing closure to this phase of the study. Detailed procedures used in this phase of the field test are provided in Appendix Q.

PHASE 6 THE FIELD TESTING OF THE CODING TECHNIQUE

The purpose of this final phase of the study was to determine the predictive validity of the coding technique when field tested in a natural classroom setting. If the coding technique is to be used with any confidence, it seems reasonable to expect that it distinguishes some consistent and meaningful differences between the verbal communication used by instructors who are 'most effective' or 'least effective' managers of intent.

In order to achieve this purpose, the verbal communication behaviors used by a group of five instructors identified by their learners as 'most effective' and a group of five instructors identified as 'least effective' in managing their intent, were systematically analyzed and compared.

Specifically, the following research questions guided this phase of the study:

1.0 Are there differences among the verbal communication behaviors used by the five instructors who were identified

by learners as 'most effective' managers of their intent? 1.1 Are there differences among the verbal communication behaviors used by the five instructors identified by learners as 'least effective' managers of their intent? 2.0 Do the verbal communication behaviors used by groups of the 'most effective' instructors differ from those verbal communciation behaviors used by groups of 'least effective' instructors?

3.0 Are there patterns of verbal communication which are used more consistently by the group of 'most effective' instructors than by the group of 'least effective' instructors? Conversely, are there patterns of verbal communication which are used more consistently by the group of 'least effective' instructors than those used by the group of 'most effective' instructors?

In an attempt to answer these questions, the following procedural steps were followed in the field testing of the coding technique.

Step 1: Selection of Subjects

Subjects were drawn from a convenience sample of thirty-two adult education instructors attached to four evening colleges in a metropolitan region of Australia. None of the sixteen male or sixteen female instructors held formal qualifications in adult education and two-thirds of the instructors were not trained teachers. Class sizes of the sampled instructors ranged from five to nineteen participants.

The following sequence summarizes the procedure utilized in the selection of subjects:

1. A state coordinator and regional coordinator for adult education were contacted by phone and letter in order to gain permission to approach evening college Principals in their area. Permission was granted.

Five evening college Principals, including one
College Board, were contacted by telephone, letter, and then
by a personal visit.

3. Working in cooperation with four Principals, participation in the field test was presented to instructors as a mutually beneficial and reciprocal learning experience. A letter was written which invited instructors to help in the field test (see Appendix R).

4. Principals distributed the letter to their evening college instructors and over a period of two weeks noted the details of those willing to participate in the field test.

5. Thirty-eight interested instructors were phoned for the following purposes: 1) to explain details of the field test; 2) to gain approval to record their first or second class meeting using an unobtrusive micro-cassette recorder; and 3) to request that five minutes before the end of the lesson, the learners be given time to respond to a student response form. It was stressed that participation was voluntary and anonymity of all participants would be protected. 6. Dates, times and locations were finalised with the thirty-two adult education instructors and two hundred and ninety-five learners who voluntarily assisted in the field test.

7. None of the participants were informed of the exact nature of the investigation until data gathering was completed. To avoid the introduction of any unnecessary bias, the study was explained in general terms of examining different communication styles used in adult education classrooms.

8. Before the completion of the college term, a written invitation was extended to all the Principals and participating instructors of each evening college, to visit the researcher's home to discuss the study (see Appendix S). As a reciprocal gesture, the researcher presented a session on classroom assessment techniques at the inaugural adult education inservice training workshop for the region.

9. At the end of the study, a brief summary of the results were mailed to all participants in the field test.

Step 2: Data Gathering

A data collection team was trained in the use of micro-cassette recorders as well as procedures for administering the learner response form at the end of each instructor's lesson. These procedures are described in Appendix E.

Audio recordings were made of each two hour lesson and learner response forms were administered five minutes before the end of each lesson. They were collected and placed in a large envelope clearly marked with the instructor's designated number. At the end of each evening, the response forms were scored and results recorded.

Step 3: Identifying Groups of 'Most Effective' and 'Least Effective' Managers of Intent

The learner response form, developed and refined during the pilot test, served as a criterion measure to identify from the thirty-two instructors sampled, the five instructors 'most effective' in managing their intent, and the five instructors who were 'least effective' in managing their intent. A summary of the mean scores of the learner response forms is provided in Appendix T.

Step 4: Transcribing Tapes and Coding Transcripts

The first hour of the audio tapes of the 'most effective' and 'least effective' groups of instructors were transcribed, checked for accuracy, typed, and proof read. The completion of these tasks involved approximately twenty hours of working time. Procedures for these tasks are described in detail in Appendix F.

The transcripts were then coded by the researcher and the coding team using procedures described in Appendix G. Acceptable intercoder coeffecients between independent coders were set at the .95 level when computing unitizing reliability, and at the .80 level for categorizing reliability. Unitizing and categorizing reliability coefficients above .80 were established for the initial 400 utterances of the first three transcripts coded. Acceptable levels of agreement above .95 were obtained for randomly selected segments of 100 utterances in the other seven transcripts coded. For further details of these coefficents, see Appendix U.

Feedback was provided to each coder on the reliability coefficients obtained and review sessions were conducted to focus on commonly occurring coding errors.

After completion of the study, letters of thanks and a summary of the research findings were sent to each member of the coding team.

Step 5: Display of Coded Data

Once acceptable levels of intercoder agreement were reached for unitizing and categorizing the coded transcripts, the coded data was tabulated and keyed into a microcomputer. This was analysed using a suite of six programs developed for the study and for use with a 48K desk computer.

Step 6: Analysis of Coded Data

In order to answer the research questions that were formulated to guide the systematic analysis and comparison of the verbal management of intent between the group of 'most effective' and 'least effective' instructors, the following analyses of coded data were carried out.

Research Question 1.0 Are there differences or similarities among the verbal communication behaviors used by the five instructors who were identified by learners as 'most effective' managers of their intent?

To determine whether the verbal communication used by the five instructors in this group differed from each other, chi-square tests for goodness of fit were employed. Significance levels were set at the .05 level.

Additional partitioning of 2 X 5 contingency tables into 2 X 2 auxiliary tables was carried out following procedures suggested by Cochran (1954), Kimball (1954) and Ellis (1977). This allowed subdivision of chi-square into components to reveal specific sources of variance among the five instructors in the 'most effective' group.

a. Conversion of Frequencies into Proportions.

Because of the unequal numbers of utterances used by the five instructors in the first hour of their lessons, the frequency data were converted to proportions. This allowed meaningful camparisons to be made within this 'most effective' group of instructors.

b. <u>Differences Between Categories and Combination</u> <u>Categories</u>

For each instructor, a tally was made of the use of the major categories and combination categories. The total number of utterances made by each instructor was recorded. Then, the use of any one major category or combination category was calculated as a proportion of the total number of utterances used by that instructor during the first hour

of the lesson (categories 1 to 12). The frequency of the utterances made by learners, (coded as category 13), were calculated separately as a proportion of all utterances used by both the instructor and the learners (categories 1 to 13).

Using Brandt and Snedecor's formula for computing chi-square in a 2 X 5 contingency table (cited in Cochran, 1954), tests of significance for differences between proportions were calculated for each category or combination category. The formula used was: $X^2 = \frac{Xjpj - pTx}{pq}$. A step by step guide to computation of this chi-square test, the use of auxiliary 2 X 2 tables, and the subdivision of X^2 into components, is provided in Cochran (1954, pp. 430-434).

Possible sources of variance between proportions were then identified. 2 X 5 contingency tables were further partitioned into selected 2 X 2 auxiliary tables to subdivide chi-square into components and to reveal specific sources of variance among the 'most effective' group of instructors.

c. <u>Differences Between the Use of Selected</u> <u>Paired Utterances</u>

Using a matrix for each instructor, the most frequently occurring paired utterances were identified and rank ordered. The ten most frequently occurring paired utterances were then selected for analysis and comparison.

A prepared worksheet similar to that shown in Figure 14 was used to compute possible sources of variance between the proportional use of selected paired utterances for each instructor in the 'most effective' group. A 2 X 5 contingency table was partitioned into selected 2 X 2 auxiliary tables to subdivide chi-square into components and reveal specific sources of variance between the five instructors.

d. <u>Differences Between the Probability of One</u> Category Following Another in Selected Pairs

Two criteria were applied to select those paired utterances to be investigated and those instructors in the 'most effective' group who showed statistically significant similarities in their use of the particular paired utterance under investigation.

First, the ten most frequently used paired utterances were selected for investigation. Second, only those instructors within the 'most effective' group whose use of the paired utterance did not differ significantly from one another were selected for comparison (a homogeneous subgroup). Third, using the matrices for each of the 'most effective' instructors of this homogeneous subgroup, the cell frequencies for the paired utterances under investigation were compared.

Instructor	Category	Other Categories	Matrix Total	Proportion	Calculation of X ² within the "Effective" group				р	
CAT	CATEGORY 1 & 2									
1	82	561	643	-1461676		Subdivision of X ² into components				
2	188	644	832	.2259615	Instructor	df	S.S.	X 2	p	
3	77	1063	1140	.067543	2:3	1	12.070541	99.73	-001	
4	119	715	834	.1426859	1:4:5	2	.394461	3.26	NS	
5	184	981	1165	•1579399	2+3:1+4+5	1	• 136244	1.20	NS	
Σ	650	3964	4614	•1408756	Σ	4	12.610301	104.19	.001	
CATEGORY 3			Subdivision of Vi into any month							
1.	45	598	643	.0699844		Subdivision of x. into components				
2	55	דרר	832	.0661058	Instructor	df	S.S.	X2	р	
3	112	1028	1140	.0982456	1:2	1	.0054550	.01	\$	
4	84	750	834	.1007194	3:4:5	2	.0030360	•02	٨S	
5	120	1045	1165	.1030043	1+2 :3+4+5	1	1.0943520	13.42	.01	
Σ	416	4198	4614=	.0901604	Σ	4.	1.102843	13-45	.01	
CAT	CATEGORY 4				Subdivision of X ² into components					
1	1	642	643	.0015552	Instructor	df	S.S.	X٢	р	
2	19	813	83Z	.0228365	1:5	Ι	.0070682	.72	NS	
3	15	1125	1140	0131579	3:4	1	.0061232	•62.	NS	
4	9	826	834	0095923	1+5:3+4	1	•0774415	7.85	•01	
5	3	1162	1165	0025751	1+5+3+4:2	1	-1680141	17.02	• 401	
Σ	46	4568	4617 =	.0099647	Σ	4	.2586747	26.21	•∞i	

FIGURE 14

WORKSHEET USED TO CALCULATE SOURCES OF VARIANCE BETWEEN PROPORTIONS

Fourth, the probability of the succeeding category of an utternace following its preceding category in a selected paired utterance was calculated using the following formula:

$P = \frac{Cell frequency for succeeding utterance}{Row frequency for preceding utterance}$

Fifth, using a prepared worksheet, similar to that shown in Figure 14, possible sources of variance between the probability of one category following another category in a selected paired utterance was computed. A 2 X 5 contingency table was partitioned into selected 2 X 2 auxiliary tables to subdivide specific sources of variance between homogeneous groups of instructors.

e. <u>Differences Between Selected Sequences</u> of Three Utterances

Sequences of three utterances were selected if the initial paired sequence appeared as 5% or more of the total utterances used by each instructor. The five most frequently occurring sequences of three utterances were rank ordered and compared.

f. <u>Differences Between Categories and Paired</u> <u>Categories Used in the First Half and the</u> <u>Second Half of a Lesson</u>

To establish if an instructor's verbal management of intent remained constant throughout the lesson, the total utterances used by that instructor were divided into the first and second halves of the lesson and then compared. Chi-square tests of association were employed to detect statistically significant differences between the utterances used in these two equal segments of the lesson. Research Question 1.1. Are there differences or similarities among the verbal communication behaviors used by the five instructors who were identified by learners as 'least effective' managers of intent?

To identify any differences, the same procedures were used as have been described for the 'most effective' group.

<u>Research Question 2</u>. Do the verbal communication behaviors used by groups of 'most effective' instructors differ from those verbal communication behaviors used by groups of 'least effective' instructors?

To answer this question adequately, it was necessary to select only those instructors within the 'most effective' group that showed homogeneity in their use of the category or paired utterance under examination. Similarly, it was necessary to select only those instructors in the 'least effective' group using the same criterion. Thus, only those subgroups of instructors already identified as homogeneous in response to Research Questions 1.1 and 1.2 were compared.

These homogeneous subgroups identified in the 'most effective' group and in the 'least effective' group were then compared to assess if there were any statistically significant differences between: 1) the use of all categories and combination categories; 2) the use of selected paired utterances; and 3) the probability of one category following another in selected paired utterances.

Chi-square tests for independent samples were employed to establish if there were statistically significant differences. A significance level of .05 was set for all comparisons.

To compare differences between the use of selected sequences of three utterances in each group, the five most frequently occurring sequences were identified, rank ordered and then compared.

<u>Research Question 3</u>. Are there patterns of verbal communication which are used more consistently by the group of 'most effective' instructors than by the group of 'least effective' instructors? Conversely, are there patterns of verbal communication which are used more consistently by the group of 'least 'effective' instructors than those used by the group of 'most effective' instructors?

Using the similarities and differences already identified within and between instructors in the 'most effective' and 'least effective' groups, consistently occurring patterns of verbal communication used to manage intent were compared.

SUMMARY

In this Chapter, the methodology employed in each of the six major phases of the study were described and explained. The phases were: 1) the development of an initial draft of the conceptual framework, classification scheme and coding technique; 2) a pilot test to establish
the adequacy of the classification scheme and the feasibility of the tentative coding technique; 3) the content validation of a second draft by a panel of experts; 4) final modifications based upon the feedback provided by the panel of experts; 5) the training of a naive group of coders to learn the classification scheme and apply the coding technique with reliability; and 6) the field testing of this technique.

In the following chapter, the findings of the field test are reported. These are presented in three parts: 1) instructor effectiveness as rated by learners; 2) coding reliability; and 3) the analysis and comparison of the 'most effective' and 'least effective' groups of instructors in the verbal management of their intent.

Chapter 5

FINDINGS OF THE FIELD TEST

In this chapter, the findings of the field test are reported. The verbal communication behaviors used by the 'most effective' and 'least effective' groups of instructors were analyzed and compared. The following summary highlights the major similarities or differences found during the field test in the use of the categories, paired utterances and sequences of three utterances:

I. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to verbally interact more frequently with their learners throughout the lesson than those instructors who were 'least effective' managers of intent.

2. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to interact more frequently with their learners throughout the lesson by the use of: 1) Scanning (questioning to assess if learners have misunderstood or misinterpreted their instructor's intent), and 2) Regarding (reinforcement of learner responses through the use of positive praise or acknowledgement of the learners' contributions or efforts).

91

3. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to indirectly explain their intent by making a suggestion rather than always using a direct statement or giving an order to the learners.

4. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship were the only instructors to follow up an apology for an error or misunderstanding with an offer to do something concrete to repair the relationship.

5. Instructors who were perceived as the least helpful or least well-intentioned when establishing the instructor/learner relationship tended to make more excuses for their action in terms of having no alternative course of action, or that their action was legitimate in their ascribed role of instructor than the 'most effective' managers of intent.

6. Instructors who were perceived as the least helpful or least well-intentioned' when establishing the instructor/learner relationship tended more frequently to prepare their learners that an upcoming explanation was not meant to be seen as malicious or arbitary than those instructors 'most effective' in managing their intent.

7. Similarities existed between the 'most effective' and 'least effective' instructors in that: 1) the sequences of the most frequently paired utterances examined were not random and the coded utterances in a sequence could

92

be maximally predicted by knowing the immediately preceding coded utterance; 2) the proportional use of categories and sequences of utterances remained stationary or constant throughout the recorded session; and 3) the subgroups compared were made up of two to five instructors who shared a homegeneity in their use of a category, paired utterance or sequence of three utterances.

COMPARISON OF THE VERBAL COMMUNICATION BEHAVIORS USED BY THE 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' GROUPS

Three main research questions were formulated to guide the systematic analyses and comparison of the verbal communication behaviors used by the five instructors 'most effective' and five instructors 'least effective' in their management of intent. The findings are reported in response to each of these questions.

Findings in Response to Research Question 1.0

Research Question 1.0 asked: Are there differences or similarities among the verbal communication behaviors used by the five instructors who were identified by learners as 'most effective' managers of their intent?

Differences or Similarities in the Proportional Use of Categories by the 'Most Effective' Group

Because of the unequal number of utterances used by the five instructors in the first hour of their lessons, the frequency data for each instructor were converted to proportions as shown in Table 1.

A COMPARISON OF THE PROPORTIONAL USE OF EACH CATEGORY BY THE 'MOST EFFECTIVE' INSTRUCTORS

	ſ]	Instr	uctor	:		RANK ORDERING OF X SCORES
CODE	CATEGORY	1	2	3	4	5	x	RANK URDERING OF A SCORES
1	SCANNING	12.75	22.48	6.58	14.27	15.62	13.98	Stating 41%
2	REQUESTING	•	. 12	. 18	-	. 17	.11	Regarding 14%
3	PREPARING	7.00	6.61	9.82	10.07	10.30	9.00	Scanning 14%
4	SHARING	. 16	2.28	1.32	. 96	. 26	1.00	Clarifying 13%
5	REGARDING	16.02	11.06	13.07	11.15	19.66	14.43	Preparing 9%
6	SUGGESTING	2.33	5.89	7.81	7.31	9.10	6.94	Suggesting 7%
7	STATING	40.59	37.98	48.68	43.88	33.48	40.92	Sharing 1%
8	CLARIFYING	21.15	13.34	11.67	11.75	10.39	12.98	Apology .3%
9	EXCUSING-UNINTENTIONAL	-	-	. 44	. 24	. 09	. 17	Excusing
10	EXCUSING-LEGITIMATE	•	•	. 09	. 12	-	. 02	(Unintentional).2%
11	APOLOGY	•	. 12	. 18	. 24	. 77	. 30	Penance .1%
12	PENANCE		. 12	. 18	-	. 17	.11	Requesting .1%
Tot	al N of utterances 1-12*	643	832	1140	834	1165	4614	Excusing
13	I.EARNER	29.57	32.74	25.34	32.20	27.19	29.09	(Legitimate) .02%
Tot	al N of utterances 1-13	912	1237	1527	1230	1600	6507	Ι

The percentages in each instructor category (1-12) are calculated as percentages of the total utterances in the 1-12 categories used by each instructor

* The percentages for each instructor in the learner category (13) are calculated as percentages of the total utterances in all categories (1-13)

An examination of obvious differences in the proportional use of categories in Table 1 indicates Instructor 2 verbally Scanned (category 1) for misunderstandings three times as much as Instructor 3. Referral to their coded transcripts revealed Instructor 2 used the Scanning category 22% while teaching an intricate skill and using a very conversational but Socratic style of questioning. On the other hand, Instructor 3 used the Scanning category only 7%, adopting a traditional demonstration technique to teach long sequences of skills and only scanning for understanding at the end of each

sequence.

The other major discrepancy within the 'most effective' group was the use by Instructor 1 of category 8, Clarifying. This category was used 21% of the time, which was 7-10% higher than other instructors. Inspection of the coded transcript revealed Instructor 1 was giving a great deal of individualized instruction of a detailed and creative nature. There was a tendency to explain abstract ideas by clarifying a concept using a variety of concrete comparisons or analogies.

Except for these differences, the proportional use of all categories by the five instructors or their learners in the 'most effective' group did not vary more than 10%. However chi-square tests of significance for differences between proportions using a 2 x 5 contingency table showed significant differences in the proportional use of all categories (p = .05).

In an effort to establish some homogeneity between the verbal communication used by the five 'most effective' instructors, the twelve categories as shown in Table 1 were collapsed into the six classifications of Assessing, Preparing, Equalising, Explaining, Excusing and Repairing as displayed in Table 2. Again chi-square tests found significant differences among the proportional use of each classification by the instructors or learners in the 'most effective' group (p=.05).

95

				Instr	uctor			
ODE	CLASSIFICATION	1	2	3	4	5	x	RANK ORDERING OF X SCORES
1	ASSESSING	12.75	22.60	6.75	14.27	15.79	14.09	
2	PREPARING	7.00	6.61	9.82	10.07	10.30	9.02	Explaining 61%
3	EQUALISING	16.17	13.34	14.39	12.11	19.91	15.43	Equali sing 15%
4	EXPLAINING	64.07	57.21	68.16	62.95	52.96	60.84	Assessing 14%
5	EXCUSING	-	•	. 53	. 36	. 09	. 22	Preparing 9%
6	REPAIRING	•	. 24	. 35	. 24	. 94	. 41	Excusion 25
N/ut	terances (1-6)*	643	832	1140	834	1165	4614	
,	LEARNER	29.57	32.74	25.34	32.20	27.19	29.09	
N/ut	terancos (1-7)#	912	1237	1527	1230	1600	6507	

A COMPARISON OF THE PROPORTIONAL USE OF EACH CLASSIFICATION BY THE 'MOST EFFECTIVE' INSTRUCTORS

The percentages in each instructor classification (1-6) are calculated as percentages of the total utterances in the 1-6 classifications used by each instructor
 The percentages for each instructor in the learner classification (7) are calculated

as percentages of the total utterances in all classifications (1-7)

Unable to establish that the five 'most effective' instructors shared any commonality in their proportional use of categories, the 2 x 5 contingency tables used for computing chi-square tests of significance for differences between proportions were further partitioned into selected 2 x 2 auxiliary tables. This subdivided chi-square into components to reveal specific sources of variance among the 'most effective' group (p =.05).

In Table 3 it can be seen that some subgroups of instructors within the 'effective group' show no statistically significant differences in their use of a particular category. On the left hand side of the page, the 2 x 5 contingency tables show the category under inspection,

DIFFERENCES IN THE PROPORTIONAL USE OF CATEGORIES AND COMBINATION CATEGORIES BY THE 'MOST EFFECTIVE' GROUP

CAT	EGORI	ES 14	<u>2</u> (Sca	nning	j)		Instructor	d£	S .S.	X3	P
	1	1	Ins.C 3	ructor 4	5	±1-5	1:4:5	2	.394461	3.26	NS
	82	188	77	110	194	650	2:3	1	12.070591	99 .73	.001 NS
**	643	812	1140	834	1165	4614	Toral:	÷	12.610301	104.19	.001
							1				
CAT	LGORY	3	(Pre	par ing	<u>,</u>		Comparison	df	S .S.	X 2	P
	1	t	3	4 AUCLON	5	×1-5	1:2	1	.0054550	.01	NS
•	45		112	84	120	416	3:415	2	.0030360	.02	NS 01
**	643	832	1140	834	1165	4614	Total:	4	1.1028430	13.45	.01
	EGORY	4	(Sha	ring)			Instructor	df	\$.\$.	X 2	
			Inat	RUCIOR			1:5	1	.0070682	. 72	NS
	1	2	3	4	5	₹1-5	314	į	.0061232	. 62	NS
*	1	19	15	8	3	46	1+5+3+4:2	i	.1680141	17.02	.001
**	643	832	1140	834	1165	4614	Total:	4	. 2586747	26.21	.001
CAT	EGORY	5	(Reg	ardin	g)		Instructor Comparison	df	s.s.	X 2	р
			Inst	ructor			214	1	.357403	2.89	NS
	1	t .	3	4	5	×1-5	1:3	1	.000355	.00	NS .02
*	103	92	149	93	229	666	2+4+1+3:5	ī	4.250461	34.42	.001
**	643	832	1140	834	1165	4614	Total:	4	5.398460	43.71	.001
CAT	EGORY	6	(Sug	gesti	ng)		Instructor Comparison	df	S.S.	X 2	P
	1	2	3	4	5	€1-5	2:3:4	2	.1827250	2.83	NS
*	15	49	89	61	106	320	1:5	1	1.8966654	29.39	.001 NS
**	643	832	1140	834	1165	4614	Total:	4	2.0969350	32.49	.001
CAT	EGORY	7	(Sta	ating)			Instructor Comparison	df	S.S.	X 2	P
·	1	1	1 R S Z	RUCION J	5	£1-5	1:2	1	.24718	1.02	NS
•	261	316		166	100	1898	3:4:5	2	13.83627	57.23	.001
**	643	832	1140	834	1165	1000	Total	4	14 78611	61 16	001
CAT	LGORY	-	(018	171791	ng)		Instructor			**	-
	1	2		LUCION J	5	x1-5	Comparison	ar	3.3.	~*	P
*	136	111	111	98	121	500	2:3:4:5	3	.424873	3.76	NS 201
**	643	832	1140	834	1165	4614	Total:	4	5.410155	47.89	.001
CAT	ECORY	13	(Le	arner	3)		Instructor Comperison	df	\$.5.	χ1	P
	1	2	1 RAZ 3	RUCEOR ↓	5	±1-5	1:3:5	2	1.02848	4.97	NS
*	270	405	387	396	635	1893	2:4	1	.01837 4.53084	.09	NS .001
***	913	1237	1527	1230	1600	6507	Total:	4	5.57769	27.04	.001
COM	BTNAT	TON C	TECODY	1.9	<u></u>		1				
<u></u>			Int	<u> </u>	508[1	ng)	Comparison 1:3	df 1	S.S.	x 2 01	P NS
	1	t	3	4	5	x1-5	2:5	i	.030390	.04	NS
*	75	73	132	42	93	415	1+3:2+5 1+3+2+5:J	1	1.029775	12.52	.001
**	643	832	1140	834	1165	4614	Total:	4	2.649874	32.37	.001
COM	BINAT	ION CA	TEGORY	5' (Regar	ding)	Instructor Comparing	df	S .S.	<u>x</u> 2	,
	1	1	Ins.C. 3	AUCLON 4	5	x1-5	2:4	1	.0209744	. 33	NS
•		•	100			,,,	1:3:5	Ž	3304490	5.20	NS
**	22	34	1140	4U 834	1144	514	Top-1.	-	1.4307120	22.00	001
	043	075	1140	034	1103	4014	TOCAT:	4	1.9091390	23.31	.001

Total utterances for the category examined
 Total utterances for all categories (1-12)
 Total utterances for all categories (1-13)
 All utterances in combination with either a category 4 on a category 5

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the designated numbers for each of the five 'most effective' instructors and the proportional use of that category. On the right hand side of the page, 2 x 2 auxiliary tables subdivide X^2 into components to reveal specific sources of variance between selected subgroups of instructors. For example in category 8, Clarifying, Instructors 2, 3, 4 and 5 do not differ significantly in the use of that category. The source of the variance among the five instructors lies with Instructor 1 whose proportional use of category 8 reveals a chi-square value of 44.13 with p =.001.

To assist easy identification of those subgroups of instructors whose use of categories were similar, the relevant findings of Table 3 are summarised in Table 4. This table highlights subgroups of instructors who showed no statistically significant difference in their use of the category under examination. For example, in the use of Preparing (category 3), the subgroup made up of Instructors 3, 4 and 5 showed no statistically significant difference to one another. This was also the case with Instructors 1 and 2. However, these subgroups are recorded separately to indicate there was a statistically significant difference between them in their use of that category. Having identified homogeneous subgroups of instructors in the 'most effective' group, the next step was to establish if their use of categories remained constant throughout the lesson. To do this, all coded utterances for each of these instructors were divided into two according to the two

SUMMARY OF FINDINGS FROM TABLE 3 TO IDENTIFY THOSE 'MOST EFFECTIVE' INSTRUCTORS WHOSE USE OF CATEGORIES WERE SIMILAR

HOMOGENEOUS GROUPS OF INSTRUCTORS WHOSE USE OF A CATEGORY WAS NOT SIGNIFICANTLY DIFFERENT FROM EACH OTHER

CATEGORY

1,4,5	Scanning (Cat.1 & 2)
3,4,5	Preparing (Cat.3)
1,2	Preparing (Cat.3)
1,5	Sharing (Cat.4)
3,4	Sharing (Cat.4)
1,3	Sharing (Combinations with Cat.4)
2,5	Sharing (Combinations with Cat.4)
1,3	Regarding (Category 5)
2,4	Regarding (Category 5)
2,4	Regarding (Combinations with Cat.5)
1,3,5	Regarding (Combinations with Cat.5)
2,3,4	Suggesting (Cat.6)
1,2	Stating (Cat.7)
2,3,4,5	Clarifying (Cat.8)
2,4	Learners (Cat.13)
1,3,5	Learners (Cat.13)

halves of each lesson and compared. As shown in Table 5, chi-square tests of association were employed to detect statistically significant differences between the categories used in these equal segments of the lesson.

Examination of Table 5 reveals that there were no significant differences (p=.05) during the two halves of the lesson by subgroups of 'most effective' instructors in their use of Scanning (categories 1 and 2), Preparing (category 3), Sharing (category 4), Regarding (category 5) and Stating (category 7). There were some marked differences in the use of the categories of Clarifying (category 8) and the Sharing combination category (category 4).

DIFFERENCES BETWEEN THE FREQUENCY OF CATEGORIES USED IN THE FIRST AND SECOND HALVES OF THE LESSONS PRESENTED BY THE 'MOST EFFECTIVE' INSTRUCTORS

<u>CATEGORIES</u> (Scanning)	L+2 CATEC	GORY 6 gesting)	CATEGORY 13 (Learners)
X ² 1 .00 2 2 3 3 50 15 .78	P NS NS NS NS NS NS NS NS	X ^z p .08 NS .04 NS 31.88.001	X ² p 1 1.95 NS 2 .99 NS 3 15.32 .001 4 .26 NS 4 .26 NS NS
CATEGORY 3	CATEO	ORY 7	COMBINATION CATEGORY 4
(Preparing)	(Sta	ting)	(Sharing)
x ² 1 .56 2 1.78 2 1.78 .04 .19 UI 5 .13	r r r r r r r r r r r r r r r r r r r	X ² p 1.86 NS 1.53 NS	X ² p 1 1.07 NS 2 1.18 NS 3 11.83 .001 4 U 5 5.39 .05
CATEGORY 4	CATE	ORY 8	COMBINATION CATEGORY 5
(Sharing)	(Cla	rifying)	(Regarding)
X ² 1 - 2 - 1 - 2 - 1 - 3 - 4 .60 5 .50	p - 12 - SS - SS - SS - SS - SS - SS - SS - S	X ² p 4.40.02 3.98.05 2.00 NS 6.02.02	X² p 1 .17 NS 2 .31 NS 3 8.32 .01 4 .00 NS 5 .04 NS
CATEGORY 5	CATEG	<u>ORIES 9, 10,</u>	11 & 12
(Regarding)	Low f	requency prevent	ted meaningful comparison
X ² 02 04 1.82 1.82 1.82	p <u>Note:</u> NS NS NS NS	i)-=Low free compar. ii) X ² figu: effectiv paired u signfica	quency prevented meaningful ison with X ² res only calculated for 'most ve' instructors whose use of utterances were <u>not</u> antly different

On the other hand, no more than one instructor varied over time in the use of the categories of Suggesting (category 6), the Regarding combination category (category 5), and Learners (category 13). Instructor 3 showed the greatest inconsistency in the use of categories over time and accounted for variance in categories 8, 13, and combination categories 4 and 5. Referral to the transcript indicated a marked change by Instructor 3 from a group demonstration in the first half of the lesson to individualized instruction in the second half, where instructor/learner interaction increased along with a subsequent increase in learner responses (category 13), instructor clarification (category 8), sharing (category 4) and regarding (category 5) verbal communication activities.

Differences or Similarities in the Use of Selected Paired Utterances by the 'Most Effective' Group

Table 6 lists the proportional use by instructors of the ten most frequently occurring paired utterances. It can be seen from the table that the five most frequently occurring paired utterances used by the 'most effective' instructors all involved verbal interaction between learners (category 13) and their instructor.

While there appears no striking discrepancies in the proportional use of the paired utterances among the five 'most effective' instructors in Table 6, these differences are statistically significant at the .05 level. However a closer inspection of the 2 x 2 auxiliary tables used to subdivide chi-square into components in Table 7 reveals that only one or two instructors are the source of variance.

TABLE 6	
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н	MUST FREQUENTLY		Instructor						RANK ORDERING OF X SCORES				
PAIRED UTTERANCES		1	2	3	4	5	x						
	13 - 7	8.33	9.79	6.42	12.53	7.50	8.75	13 - 7	(Learner fol	lowed	l by Stating)	9%	
	7-13	5.48	10.03	6.82	12.21	5.88	8.03	7 -13	(Stating		Learner)	8%	
*	13-5	8.66	4.61	6.68	5.29	8.94	6.86	13 - 5	(Learner	**	Regard ing)	7%	
	1-13	5.04	8.98	2.62	6.02	6.75	5.83	1 -13	(Scanning		Learner)	6%	
	5-13	6.03	1.94	4.19	2.85	4.44	3.83	5 -13	(Regarding		Learner)	4%	
		2.10						7 - 7	(Stating		Stating)	4%	
	/ - /	3.18	2.99	7.80	4.31	3.13	4.44	7 - 8	(Stating		Clarifying)	4%	
	7 - 8	5.92	2.83	4.00	4.48	3.69	4.06	3 - 7	(Preparing		Stating)	3%	
**	8 7	2.08	1.62	2.75	1.63	1.06	1.81	8 - 7	(Clarifying	"	Stating)	2%	
	3-7	3.51	1.70	3.74	4.64	2.44	3.17	8 - 8	(Clarifying	н	Clarifying)	1%	
	8-8	1.64	. 32	. 39	. 57	. 56	. 63	_					

A COMPARISON OF THE TEN MOST FREQUENTLY OCCURRING PAIRED UTTERANCES USED BY THE 'MOST EFFECTIVE' GROUP

<u>Note</u>: i) * Criteria for selection was the five most frequently occurring paired utterances used by the 'most effective' instructors ii) ** Criteria for selection was the five most frequently occurring

paired utterances used by the 'least effective' instructors

iii) Occurrence of paired utterances expressed as a percentage of the total utterances uses by each instructor

iv) A paired utterance such as 13 - 7 means that a <u>learner</u> utterance was followed by an instructor <u>stating</u> his/her intent

Table 8 is extrapolated from Table 7 and summarizes those 'most effective' instructors whose use of paired utterances was similar. For example, in the use of paired utterance Learner followed by Stating (13-7), the subgroup made up of Instructors 1 and 2 showed no statistically significant difference to one another. This was also the case with Instructors 3 and 5. However, these subgroups are recorded separately to indicate that there was a statistically significant difference between them in their use of the paired utterance 13-7.

103

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DIFFERENCES IN THE USE OF THE SELECTED PAIRED UTTERANCES BY THE 'MOST EFFECTIVE' GROUP

1 .	IRED	UTTER	ANCE	13-7			Instructor	df	5.5.	X 2	
(L	Learr	herS	itatin	g)			Comparison		5.5.		
	1	2]#4 	tructo J	۸ 5	#1-5	3:5	1	.0915030	1.15	NS MS
					190		3+5:1+2	ī	.6117280	7.67	.01
	/0	121	98 1627	134	1400	209 4507	J+:+/+Z:4	<u>_</u>	2.1024095	37 31	.001
	912	1237	1527	1230	1000	6307	IDLAIT		2.9772400	37.31	.001
PA	IKLU	UTIER	ANLL	<u>/-12</u>			Instructor	df	S.S.	X 2	Р
	Stat:	ingl	.earne) 4	5	x1-5	1:5	1	.0092334	.13	NS
							2:3:4	2	2.0312640	27.53	.001
*	50	124	104	150	94	522	1+5:2+3+4		2.1506286	29.14	.001
	913	1237	132/	1230	1000	0307	IOCAL:		4.1911200	50.00	.001
PAI	IKED	UTIER	ANCE	<u>13-2</u>			Instructor	df	S.S.	X 2	Р
(Le	earne	∍rRe	gardi	.ng)	ç	#1.5	1:5	1	.0047185	. 07	NS
		4	,	•			2:3:4	2	.3155060	4.94	NS
*	79	57	102	65	143	446	1+5:2+3+4	1	1.6013295	25.09	.001
**	913	1237	1527	1230	1600	6507	Total:	4	1.9215540	30.10	.001
PA	IRED	UTTE	RANCE	1-13			Instructor	df	S.S.	χ2	, l
(Sçan	ning-	-Lear	ner)	•		comparison	•	1719/0		
	1	z	3	4	5	¥C I - 5	3:2	1	1.672910	30.50	.001
*	46	111	40	74	108	379	1+4+5:3+2	ī	1.148756	20.94	.001
**	913	1237	1527	1230	1600	6507	Total:	4	2.993006	54.56	.001
PA	IRED	UTTE	RANCE	5-13			Instructor	40		¥ 2	
()	Rega	rding-	Lear	(rer)			Comparison	ur.	3.3.	•-	Р
	r	2 -	3	4	5	≈ 1-5	3:4:5	2	.1960432	5.33	NS
•	55	24	64	35	71	249	1+2:3+4+5	i	.0071094	.19	NS
**	913	1237	1527	1230	1600	6507	Total:	4	1.0792590	29.33	.001
PA	IRED	UTTE	RANCE	7-7			Instructor				
	Stat	ing	Statin	na)			Comparison	đî	5.5.	X I	P
	1	1	3	· • 4	5	x1-5	1:2:5	2	.049075	1.16	NS
*	29	37	120	53	50	289	3:4 1+2+5:3+4	1	1.320086	31.10	.001
**	913	1237	1527	1230	1600	6507	Total:	4	2.227519	52.48	.001
PA	TRED	UTTER	ANCE	7_8							
	+ + + +		arif.	$\frac{1}{100}$			Instructor	44		¥ 2	
10		ngc.	3	4	5	€ 1-5	Comparison	ar	3.3.	*-	р
1.	C /.	26	£ 1		60	261	2:3:4:5	3	.1737284	4.46	NS
**	917	22 1977	1527	1230	1600	6507	Torel	4	5450150	14:00	01
DA	TRED	IITTER	ANCE	8_7		0.507				14.00	
ILV.	last	fuine	CL-A				Instructor Comparison	df	S.S.	χ2	Р
110	1911	i Aruð-	3 (8(LUGI			1				NC
(C)	ī	2	3	4	5	£1-5	1:2	1	.0113165	. 64	11-3
(C)	1	2	3		5	£1-5	1:2 3:4:5	1 2	.0113165	.64 60.85	.001
(C) *	1	20	3 42	20	5 17	£1-5 118	1:2 3:4:5 1+2:3+4+5	1 2 1	.0113165 1.0835315 .4266967	.64 60.85 23.96	.001
(C) * **	1 19 913	2 20 1237	3 42 1527	20 1230	5 17 1600	£1-5 118 6507	1:2 3:4:5 1+2:3+4+5 Total:	1 2 1 4	.0113165 1.0835315 .4266967 1.5215447	.64 60.85 23.96 85.45	.001 .001 .001
(C) * ** <u>PA</u>	19 913 IRED	20 1237 UTTEI	3 42 1527 RANCE	20 1230 <u>3-7</u>	5 17 1600	£1-5 118 6507	1:2 3:4:5 1+2:3+4+5 Total: Instructor	1 2 1 4 df	.0113165 1.0835315 .4266967 1.5215447 S.S	.64 60.85 23.96 85.45 x ²	.001 .001 .001
(C * ** <u>PA</u> (P	19 913 IRED repa	20 1237 UTTEI ring	3 42 1527 <u>RANCE</u> -Stati	20 1230 <u>3-7</u> ing)	5 17 1600	₹1-5 118 6507	1:2 3:4:5 1+2:3+4+5 Total: Instructor Comparison 9:5	1 2 1 4 df	.0113165 1.0835315 .4266967 1.5215447 S.S 0381856	.64 60.85 23.96 85.45 x ²	.001 .001 .001 .001
(C) * ** <u>PA</u> (P)	19 913 IRED repa	20 1237 UTTEI ring	3 42 1527 <u>ANCE</u> -Stati	20 1230 3-7 ing)	5 17 1600 5	x1-5 118 6507 x1-5	1:2 3:4:5 1+2:3+4+5 Total: Instructor Comparison 2:5 1:3:4	1 2 1 4 df 1 2	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582	.64 60.85 23.96 85.45 x ² 1.25 2.69	.001 .001 .001 .001 P NS NS
(C) * ** <u>PA</u> (P) *	19 913 <u>IRED</u> repa	20 1237 UTTEI ring 21	3 42 1527 RANCE -Stati 3 57	20 1230 3-7 ing) 57	5 17 1600 5 39	x1-5 118 6507 x1-5 206	1:2 3:4:5 1+2:3+4+5 Total: Instructon Comparison 2:5 1:3:4 2+5:1+3+4	1 2 1 4 df 1 2 1	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12	.001 .001 .001 P NS .001
(C) * ** <u>PA</u> (P) *	1 19 913 <u>IRED</u> repa 32 913	20 1237 UTTEI ring 21 1237	3 42 1527 ANCE -Stati 3 57 1527	20 1230 3-7 ing) 4 57 1230	5 17 1600 5 39 1600	x1-5 118 6507 x1-5 206 6507	1:2 3:4:5 1+2:3+4+5 Total: Instructor Comparison 2:5 1:3:4 2+5:1+3+4 Total:	1 2 1 4 df 1 2 1 4	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287 .6762725	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12 22.06	.001 .001 .001 P NS .001 .001
(C * ** <u>PA</u> (P * * *	1 19 913 IRED repa 32 913 AIRED	2 20 1237 UTTEI ring 2 21 1237 O UTTE	3 42 1527 ANCE -Stati 3 57 1527 RANCE	20 1230 3-7 ing) 4 57 1230 8-8	5 17 1600 5 39 1600	x1-5 118 6507 x1-5 206 6507	1:2 3:4:5 1+2:3+4+5 Total: Instructor Comparison 2:5 1:3:4 2+5:1+3+4 Total:	1 2 1 4 df 1 2 1 4	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287 .6762725	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12 22.06	.001 .001 .001 P NS .001 .001
(C) * ** (P) * * * * * *	1 19 913 IRED repa 32 913 AIREC larit	2 20 1237 UTTEI ring 21 1237 O UTTE Fying-	3 42 1527 ANCE -Stati 3 57 1527 RANCE Clari	20 1230 3-7 ing) 4 57 1230 <u>8-8</u> fying	5 17 1600 5 39 1600	x1-5 118 6507 x1-5 206 6507	1:2 3:4:5 1+2:3+4+5 Total: Instauctor Comparison 2:5 1:3:4 2+5:1+3+4 Total: Instauctor Comparison	1 2 1 4 df 1 2 1 4 df	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287 .6762725 S.S.	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12 22.06 x ²	NO1 .001 .001 P NS NS .001 .001
(C) * ** (P) * * * *	1 913 IRED repa 32 913 AIREE 1 arif	2 20 1237 UTTE Fing 2 21 1237 O UTTE Fying- 2	3 42 1527 ANCE -Stati 3 57 1527 RANCE Clari 3	20 1230 3-7 ing) 4 57 1230 8-8 fying	5 17 1600 5 39 1600) 5	x1-5 118 6507 x1-5 206 6507 x1-5	1:2 3:4:5 1+2:3+4+5 Total: Instauctor Comparison 2:5 1:3:4 2+5:1+3+4 Total: Instauctor Comparison 2:3:4:5	1 2 1 4 df 1 2 1 4 4 df 3	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287 .6762725 S.S. .0061288	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12 22.06 x ² .98	.001 .001 .001 .001 P NS NS .001 .001 P NS
(C) * ** (P) * * * (C) *	19 913 IRED repa 32 913 AIREE 18rif	2 20 1237 UTTEI ring- 21 1237 D UTTE fying- 2 4	3 42 1527 RANCE -Stati 3 57 1527 RANCE Clari 3 6	20 1230 3-7 ing) 4 57 1230 8-8 fying 4 7	5 17 1600 5 39 1600) 5 9	x1-5 118 6507 x1-5 206 6507 x1-5 41	1:2 3:4:5 1+2:3+4+5 Total: Instructor Comparison 2:5 1:3:4 2+5:1+3+4 Total: Instructor Comparison 2:3:4:5 2+3+4+5:1	1 2 1 4 df 1 2 1 4 df 3 1	.0113165 1.0835315 .4266967 1.5215447 S.S .0381856 .0825582 .5555287 .6762725 S.S. .0061288 .1089482	.64 60.85 23.96 85.45 x ² 1.25 2.69 18.12 22.06 x ² .98 17.40	.001 .001 .001 .001 P NS .001 .001 P NS .001

* Total incidences for the paired categories examined ** Total utterances for all categories (1-13)

SUMMARY OF FINDINGS FROM TABLE 7 TO IDENTIFY THOSE 'MOST EFFECTIVE' INSTRUCTORS WHOSE USE OF PAIRED UTTERANCES WERE SIMILAR TO EACH OTHER

HOMOGENEOUS GROUPS OF INSTRUCTORS WHOSE USE OF A PAIRED UTTERANCE WAS NOT SIGNIFICANTLY DIFFERENT FROM EACH OTHER

> (Learner followed by Stating) (13 - 7)1,2 3,5 11 Learner) (7 - 13)1,5 (Stating ... Regarding)(13-5) 1,5 (Learner 2,3,4 11 Learner) (Scanning (1-13)1,4,5 11 (5-13)3,4,5 (Regarding Learner) 11 (7 - 7)1,2,5 (Stating Stating) It Clarifying)(7-8) 2,3,4,5 (Stating 11 (Clarifying Stating) (8 - 7)1,2 11 (3 - 7)2,5 (Preparing Stating) 1,3,4 11 (Clarifying Clarifying)(8-8) 2,3,4,5

As shown in Table 9, it was further established that the use of six out of the ten paired utterances examined remained constant throughout the lesson. In the use of Learner followed by Stating (13-7) and Preparing followed by Stating (3-7) only one instructor showed a significant difference in the first and second halves of the lesson. However, in the case of Stating followed by Stating (7-7) and Regarding followed by Learner (5-13), most instructors in the 'most effective' group were not constant in their use of these paired utterances.

PAIRED CATEGORY

DIFFERENCES BETWEEN THE PAIRED CATEGORIES USED IN THE FIRST AND SECOND HALVES OF THE LESSON BY THE 'MOST EFFECTIVE' INSTRUCTORS

PAIRED UTTERANCE 13-7 (LearnerStating)	PAIRED UTTERANCE 1-13 (ScanningLearner)	<u>PAIRED_UITERANCE_7-8</u> (StatingClarifying)
X ² p 1 .00 NS 2 3.97 .05 1 3 3.31 NS 4 U 5 .27 NS	X ² p 1 .00 NS 2 .01 3 .05 NS 4 1.95 NS 1 .93 NS	X ² p 1 2 .17 NS 1.33 NS 3 1.33 NS 4 .16 NS 15 2.86 NS
PAIRED UTTERANCE 7-13 (StatingLearner)	PAIRED UTTERANCE 5-13 (RegardingLearner)	<u>PAIRED_UITERANCE_8-7</u> (ClarifyingStating)
X ² p 1 .72 NS 2 2 X 3 4 4 4 4 4 17 NS	x ² p 1 1 2 1 3 4.39 .05 3 4 .24 NS 1 5 4.07 .05	x ² p 01 1 .05 NS 02 2 3.20 NS 13 18 18 15
<u>PAIRED UTTERANCE 13-5</u> (LearnerRegarding)	<u>PAIRED_UITERANCE_7-7</u> (StatingStating)	<u>PAIRED_UTTERANCE_3-7</u> (PreparingStating)
X ² p 1 1.03 NS 2 .07 NS 3 3.57 NS 4 .38 NS 1 5 71.50 NS	Significant difference at .05 level and so no meaningful comparison could be made.	xt p 1 2.00 NS 2 1.19 NS 3 4.57 .05 4 .36 NS 5 .64 NS
<u>Note:</u> i)- = Low freque compariso ii) X² figures effective' paired utto sigificant	PAIRED UTTERANCE 8-8 (Clarifying-Clarifying) X ^t p 0 1 0 2 .07 NS 3 .00 NS 4 .00 NS	
		H

Differences or Similarities Between the Probability of One Category Following Another in Selected Paired Utterances Used by the 'Most Effective' Group

Table 10 examines the differences in probability of one category following another in selected paired utterances. In order to find out the extent that a person

DIFFERENCES IN PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN SELECTED PAIRED UTTERANCES FOR 'MOST EFFECTIVE' GROUP

PA.	IRED	UTTER/	ANCE 1	3-7							
(1	learn 1	erSi z	tating 3) 4	5	₹ 1-5	Instructor Comparison	df	S.S.	X1	р
*	76	121	98	154	120	569	1+2+3+5:4 1:2:3:5	1	3.89151 1.09412	18.50	.001 NS
**	269	405	387	396	435	1892	Total:	4	4.98563	23.71	.001
PAI	RED L	JTTERA	NCE 7	-13			Instructor Comparison	df	S.S.	χ2	Р
(3	1	19Le 2	arner 3	4	5	z1-5	2:4	1	.032001	1.41	NS
*	50	124	104	150	94	522	1:3:5 2+4:1+3+5	2	1.300230 11.390869	5.73 48.88	NS .001
**	184	271	401	323	318	1497	Total:	4	12.723100	56.02	.001
PAI	RED	JT TER/	NCE 1	3-5			Instructor	đĒ		¥1	
(Le	arne	rReg	ardin	g)	£	- 1 - 5	Comparison	,	109639	~ 61	NS
			,	•	,,,,	21-3	1:3:5	2	.873686	4.85	NS
**	79 269	2/ 405	102	00 396	143	440	Z+4:1+3+5	4	9.000433	59 11	.001
	RED I	ITTERA	NCE 1	-13		1072	10041.				
(9	icann'	ingl	earne	r)			Comparison	df	S.S.	χ2	Р
	1	1	3	- ' 4	5	≈ 1-5					
*	46	111	40	74	108	379					
**	71	173	63	108	154	569	Total:	4	.422531	1.90	NS
PAI	RED I	JTTERA	INCE 5	<u>-13</u>			7				
(R	egard	ding	Learn	er) 4	5	±1-5	Comparison	df	S.S.	X 2	Р
+	55	24	64	75	71	249	2:3:4:5	3	1.443594	5.93	NS
**	90	69	139	85	ź11	594	Total:	4	5.34941	21.97	.001
PAI	RED	UTTER/	NCE 7	-7							{
(9	Stati	ngSt	ating)			Instructor	df	S .S.	χ 2	P
	1	2	3 -	4	5	₹1-5	1:2:4:5	3	.121235	. 78	NS
*	29	37	120	53	50	289	1+2+4+5:3	1	6.177272	39.65	.001
**	184	271	401	323	318	1497	Total:	4	6.298507	40.43	.001
$\frac{PAI}{C}$	INLU		ANUL /	<u>-8</u>			Instructor				
(5)	lacin	gL11 2	351171 3	.ng) 4	5	±1-5	Comparison	đf	S.S.	χı	Р
*	54	35	61	55	59	264	2:3:4:5 2+3+4+5:1	3 1	.171600	3.05	215 .001
**	184	271	401	323	318	1497	Total:	4	18.369473	107.05	.001
PA	IRED	UTTER	ANCE 8	3-7			Instructor				
(C	larif	ying-	-Stati	ng)			Comparison	ar	3.5.	**	P
	1	2	3	4	5	£1-5	1:2:5 1+2+5:3+4	2	.1016233 2.0531910	.59 11.95	NS .001
•	19	20		20			1.4	-	1 200/ 700	8.08	.01
**			42	20	17	118		1	1.3904/90	00 10	I
0.4.7	114	102	42 112	95 7	111	534	Total:	1	3.5499033	20.62	.001
<u>PAI</u>	114 RED L	102 JTTERA	112 NCE 3	95 -7 -7	111	534	Total: Instructor Comparison	1 4 df	3.5499033 S.S.	20.62 x ²	.001 P
PAI (Pr	114 RED L repart	102 JTTERA ing9	112 INCE 3 Stating	95 -7 g)	17 111 5	118 534 x 1-5	Total: Instructor Comparison 1:3:4	1 4 df 2	1.3764790 3.5499033 5.S. 1.378730	20.62 x ² 5.64	.001 P NS
<u>PAI</u> (Pr	114 RED L repart 1 32	102 <u>JTTERA</u> ingS 2 21	42 112 NCE 3 Statin 3 57	20 95 <u>-7</u> g) 4 57	17 111 5 39	118 534 € 1-5 206	Total: Instructor Comparison 1:3:4 2:5 1+3+4:2+5	1 4 df 2 1 1	3.5499033 S.S. 1.378730 .201869 6.526511	20.62 x ² 5.64 .83 26.68	.001 P NS NS .001
<u>PAI</u> (Pr *	114 RED U repart 1 32 40	102 <u>JTTERA</u> ingS 2 21 45	42 112 NCE 3 Statin 3 57 95	20 95 <u>-7</u> g) 4 57 78	17 111 5 39 101	118 534 ≭ 1-5 206 359	Total: Instructor Comparison 1:3:4 2:5 1+3+4:2+5 Total:	1 4 df 2 1 1 4	1.3904790 3.5499033 5.5. 1.378730 .201869 6.526511 8.107110	20.62 x ² 5.64 .83 26.68 33.15	.001 P NS NS .001 .001
<u>PAI</u> (Pr * ** <u>PA</u>	114 RED L repart 32 40 IRED	102 JTTERA ingS 2 21 45 UTTER	42 112 NCE 3 itatin 3 57 95 ANCE 8	20 95 -7 g) 4 57 78 1-8	17 111 5 39 101	118 534 <i>■</i> 1-5 206 359	Total: Instructor Comparison 1:3:4 2:5 1:3:4:2:5 Total: Instructor	1 4 df 2 1 1 4 df	1.378730 3.5499033 5.S. 1.378730 .201869 6.526511 8.107110 S.S.	20.62 x ² 5.64 .83 26.68 33.15 x ²	.001 P NS NS .001 .001
<u>PAI</u> (Pr * ** <u>PA</u> (C14	114 RED U repart 32 40 IRED arify	102 JTTERA ingS z 21 45 UTTER ing-C	112 INCE 3 Statin 3 57 95 ANCE 8 Iarify	20 95 -7 (3) 4 57 78 -8 (1-8)	17 111 5 39 101	118 534 ₹ 1-5 206 359	Total: Instructor Comparison 1:3:4 2:5 1:3:4:2:5 Total: Instructor Comparison	1 4 df 2 1 1 4 df	1.3904790 3.5499033 5.S. 1.378730 .201869 6.526511 8.107110 S.S.	20.62 x ² 5.64 .83 26.68 33.15 x ²	.001 P NS NS .001 .001 P
<u>PAI</u> (Pr ** <u>PA</u> (C1)	114 RED L repart 1 32 40 IRED arify	102 JTTERA ingS 2 21 45 UTTER ing-C 2	112 NCE 3 itatin 3 57 95 ANCE 6 larify 3	20 95 -7 (1) 4 57 78 -8 (1) -8 (1) (1) 20 95	17 111 5 39 101 5	118 534 x 1-5 206 359 x 1-5	Total: Instructor Comparison 1:3:4 2:5 1+3+4:2+5 Total: Instructor Comparison	1 4 df 2 1 1 4 df	1.3904790 3.5499033 5.S. 1.378730 .201869 6.526511 8.107110 S.S.	20.62 x ² 5.64 .83 26.68 33.15 x ²	.001 P NS NS .001 .001 P
<u>PAI</u> (Pr * ** (C1: *	114 RED (repart 32 40 IRED 15 114	102 JTTERA ingS 2 21 45 UTTER ing-C 2 4 102	42 112 NCE 3 itatin 57 95 ANCE 6 larify 6 112	20 95 -7 (1) 4 57 78 -8 (1-8 (1-8) 4 7 95	17 111 5 39 101 5 9	118 534 £ 1-5 206 359 £ 1-5 41 534	Total: Instructor Comparison 1:3:4 2:5 1:3:4:2:5 Total: Instructor Comparison Total:	1 4 df 2 1 1 4 4 df	1.3904790 3.5499033 5.S. 1.378730 .201869 6.526511 8.107110 S.S.	20.62 x ² 5.64 .83 26.68 33.15 x ²	.001 P NS NS .001 .001 P

Total incidences for the paired categories examined
 ** Total utterances for the preceding category in the pair

could confidently predict the probability of one category following another, the ten most frequently paired utterances were analysed. For example, the paired category 1-13 in Table 10 shows that on the right hand side of the 2 x 5 contingency table there were no significant differences (p=.05) among the five 'most effective' instructors in the probability of a learner responding when his instructor scanned for understanding.

In Table 11, a summary of the findings from Table 10 are extrapolated to identify the mean probability of one category following another in frequently used paired utterances by the 'most effective' instructors. For example, it is shown that on average, the probability with which one could confidently predict if learners would respond to their instructor's scanning (1-13) is 68% of the time.

TABLE 11

SUMMARY OF FINDINGS FROM TABLE 10 TO IDENTIFY THE \overline{X} PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN FREQUENTLY USED PAIRED UTTERANCES BY THE 'MOST EFFECTIVE' INSTRUCTORS

PAIRED UTTER	ANCES EXAMINED		x	Probability
(1 - 13)	Scanning fol	lowed b	y Learners	68%
(3 - 7)	Preparing	88	Stating	57%
(5 - 13)	Regarding	11	Learners	38%
(13 - 7)	Learner	**	Stating	28%
(7 - 13)	Stating	11	Learners	25%
(13 - 5)	Learner		Regarding	24%
(8 - 7)	Clarifying	88	Stating	18%
(7 - 8)	Stating	88	Clarifying	16%
(7 - 7)	Stating	**	Stating	15%
(8 - 8)	Clarifying		Clarifying	88

From Table 12 it can been seen that in most cases the probability of one category following another in the ten most frequently used paired utterances did not differ

TABLE 12

DIFFERENCES IN THE PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN SELECTED PAIRED UTTERANCES FOR THE FIRST AND SECOND HALVES OF THE LESSON FOR EACH OF THE INSTRUCTORS IN THE 'MOST EFFECTIVE' GROUP

PAIRED UTTERANCE 13-7	PAIRED UTTERANCE 1-13	PAIRED UTTERANCE 7-8		
(LearnerStating)	(ScanningLearner)	(StatingClarifying)		
LOX2 P 1.72 NS 1.72 NS 1.2 .29 NS 1.3 .03 NS 1.51 NS	X ² p 0 1 .23 NS 0 2 .84 NS 1 3 .13 NS 1 4 .63 NS 1 5 .00 NS	X ² p 0 1 1 2 2.04 NS 1 3 .00 NS 1 4 .64 NS 1 5 6.38 .02		
PAIRED UTTERANCE 7-13	PAIRED UTTERANCE 5-13	PAIRED UTTERANCE 8-7		
(StatingLearner)	(RegardingLearner)	(ClarifyingStating)		
X ² p 1 2.96 NS 1 2.96 NS 1 2.00 NS 1 3 17.05 .001 1 4 .08 NS 1 5 .14 NS	X ² p J 1 J 2 1.08 NS J 3 1.45 NS 4 .02 NS 4 .02 NS 5 9.11 .01	X ² p 1 .31 NS 2 9.64 .01 13 2 .16 NS		
PAIRED UTTERANCE 13-5	PAIRED UTTERANCE 7-7	PAIRED UTTERANCE 3-7		
(LearnerRegarding)	(StatingStating)	(PreparingStating)		
X ² p 1 .13 NS 2 .21 NS 2 .21 NS 3 .01 NS 4 .23 NS 5 .02 NS 4	X ² p 1 .52 NS 1 2 4.52 .05 1 4 8 5 6.30 .02	X ² p 01 00 NS 02 06 NS 13 2.50 NS 14 2.28 NS 14 .61 NS		
Note: i)-=Low frequer	cy prevented meaningful	PAIRED UTTERANCE 8-8 (Clarifying-Clarifying)		

lote: i)	<pre>>Low frequency prevented meaningful</pre>	(Clarifying-Clar
	comparison with X ²	χ 2
ii)	X ² figures only calculated for 'most effective' instructors whose use of	1 1 2 2 -
	paired utterances were not	ជ 3 - រដ្ឋ -
	signficantly different	ē5 -

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108

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significantly throughout the lesson. The notable exception was in the probability of Stating being followed by Stating (7-7) which showed variances for two out of the three instructors whose use of that paired utterance was similar.

Sequences of Three Utterances Used by the 'Most Effective' Group

For the instructors in the 'most effective' group, the five most frequently used sequences of three utterances were rank ordered and compared. The ranking of incidence is shown in Table 13. From examination of Table 13, the most frequently used sequences of three utterances are summarized

TABLE 13

RANKING OF INCIDENCE OF SEQUENCES OF THREE UTTERANCES FREQUENTLY USED BY THE 'MOST EFFECTIVE' INSTRUCTORS

			I	RANK ORDEI	ર	
		1	2	3	4	5
_	1	13→5+13	13->7+13	8+13-+7	5 → 13 → 5	7-+8+13
IVE RS	2	13-+7+13	131-13	7+13→7	1-13-7	7→1+13
'ECT	3	13→5→13	7→7→7	13→7+13	7 → 13 → 7	7• 13 → 5
ST EFF	4	7+13 →7	13→7→13	3→7+13	13→7→8 13→1→13	
I SOM -	5	13→5+13	13-+7+13	$\begin{array}{r}1-13 \rightarrow 5\\7-13 \rightarrow 7\end{array}$		5+13→5 7→1+13

<u>Criteria for selection</u>: Sequences of three utterances were identified if the initial paired sequence appeared 5% or more of the frequency total of each instructor. These sequences were ranked according to their frequency for each instructor. in Table 14 to highlight the interactive pattern of verbal communication between learners and their instructor.

From Table 14, it can be seen that within the 'most effective' group of instructors, a predominant pattern of interaction between instructors and their learners emerged in the use of sequences of three utterances. Apart from Stating (category 7), these interactive sequences used by the 'most effective' instructors are typified by Scanning for misunderstandings (category 1) or the giving of positive praise or acknowledgement to learners (category 5).

TABLE 14

SUMMARY FROM TABLE 13 TO IDENTIFY PATTERNS IN THE SEQUENCES OF THREE UTTERANCES FREQUENTLY USED BY THE 'MOST EFFECTIVE' INSTRUCTORS

13- 7-13 13- 1-13	<u>Learner</u> Learner	 STATING SCANNING	 Learner Learner
13- 5-13	Learner	 REGARDING	 Learner
5-13- 5 7-13- 5	STATING	 Learner	 REGARDING
1-13-5	SCANNING	 Learner	 REGARDING
7- 8-13	STATING	 CLARIFYING	 Learner
13- 7- 8 7- 1-13	Learner STATING	 STATING	 CLARIFYING
, 115		Contributing	Dearmer

- Note: i) A sequence of three utterances such as 13 7 13 is read as: 'a learner utterance, followed by the instructor stating, followed by another learner utterance'
 - ii) Sequences of three utterances have been arranged to highlight the interactive nature of verbal communication between the instructors and their learners.

Findings in Response to Research Question 1.1

Research Question 1.1 asked: Are there differences or similarities among the verbal communication behaviors used by the five instructors identified by learners as 'least effective' managers of their intent?

Differences or Similarities in the Proportional Use of Categories by the 'Least Effective' Group

Table 15 shows the differences and similarities in the proportional use of categories by the five instructors in the 'least effective' group. An inspection of the table shows an obvious difference in the proportional use of categories by Instructor 7. This instructor verbally scanned for misunderstandings (Category 1) twelve times as much as Instructor 9, and two to three times as much as the other instructors. Referral to the coded transcripts

TABLE 15

			I	nstru	ctor				
CODE	CATEGORY	6	7	8	9	10	x	RANK ORDERING OF	X SCORE
1	SCANNING	3.60	12.16	5.28	1.10	4.86	5.87		
2	REQUESTIN:	.17	•	. 12	•	. 17	. 09	6 1 1 1	
3	PREPARING	17.67	9.52	13.74	9.56	6.87	11.51	Stating	48%
4	SHARING	-	. 25	1.35	1.10	. 50	. 66	Clarifying	22%
5	REGARDING	9.78	3.62	4.29	2.76	11.39	6.11	Preparing	12%
6	SUGGESTING	6.52	1.88	7.24	4.41	3.52	4.70	Regarding	6%
7	STATING	38.08	55.14	46 50	\$7 94	45 56	67 4H	Scanning	6%
8	CLARIFYING	19.90	17 42	19 26	27 76	25 96	21 52	Suggesting	5%
9	EXCUSING-UNINTENTIONAL	1 54		61		17.70	4.8	Sharing	1%
10	EXCUSING-LEGITIMATE	1 89						Excusing	
11	APOLOCY	84						(Legitimate)	1%
12	PENANCE	. 00		. 70				Excusing	
		· · ·		-				(Unintentional)	.5%
100	it N of utterances 1-12*	583	798	815	544	597	3337	Apology	.5%
13	LEARNER	13.50	14.29	7.18	2.86	14.71	10.85	Requesting	.1%
Tota	I N of utterances 1-13	674	931	878	560	700	3743	Penance	0%

A COMPARISON OF THE PROPORTIONAL USE OF EACH CATEGORY BY THE 'LEAST EFFECTIVE' INSTRUCTORS

* The percentages in each instructor category (1-12) are calculated as percentages of the total utterances in the 1-12 categories used by each instructor

The percentages for each instructor in the learner category (13) are calculated as percentages of the total utterances in all categories (1-13) revealed Instructor 7 would: 1) make a statement, pause, and then finish the statement with a rhetorical form of question <u>e.g.</u> "Obvious, isn't it?", "It looks awful, doesn't it?" or 2) leave no time for a response <u>e.g.</u> "Did you see me? Watch me again.". While three instructors used the Apology category (category 11), none of the 'least effective' group used the Penance category (category 12).

The twelve categories were collapsed into six larger classifications as shown in Table 16. However Chi-square tests of significance for differences between proportions using 2 x 5 contingency tables found differences in the proportional use of all classifications at the .05 level.

TABLE 16

		_	Ir	nstruc	tor			
:00 E	CLASSIFICATION	6	7	8	9	10	x	
1	ASSESSING	3.77	12.16	5.40	1.10	5.03	5.96	
2	PREPARING	17.67	9.52	13.74	9.56	6.87	11.51	KANK URDERING UP & SCURES
J	EQUALISING	9.78	3.88	5.64	3.86	11.89	6.77	Explaining 74%
4	EXPLAINING	64.49	74.44	73.00	85.11	75.01	74.20	Preparing 12%
5	EXCUSINC	3.43	-	1.23	-	. 01	1.11	Equalising 7%
6	REPAIRING	. 86	•	. 98	. 37	•	. 45	Assessing 6%
N/ut	terances (1-6)*	583	798	815	544	597	3337	Repairing .45%
7	LEARNER	13.50	14.29	7.18	2.86	14.71	10.85	
N/ut	terances (1-7)‡	674	931	878	560	700	3743	

A COMPARISON OF THE PROPORTIONAL USE OF EACH CLASSIFICATION BY THE 'LEAST EFFECTIVE' INSTRUCTORS

 The percentages in each instructor classification (1-6) are calculated as percentages of the total utterances in the 1-6 classifications used by each instructor
 The percentages for each instructor in the learner classification (2) are calculated.

The percentages for each instructor in the learner classification (7) are calculated as percentages of the total utterances in all classifications (1-7)

As displayed in Table 17, a further partitioning of the 2 x 5 tables into 2 x 2 auxiliary tables subdivided

DIFFERENCES IN THE PROPORTIONAL USE OF CATEGORIES AND COMBINATION CATEGORIES BY THE 'LEAST EFFECTIVE' GROUP

$\begin{array}{c c c c c c c c c c c c c c c c c c c $.68 NS .80 .001 .77 .001 .25 .001 .25 .001 .25 .001 .25 .001 .34 .001 .11 .001 .45 .001 .46 .02
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$.80 .001 .77 .001 .25 .001 .25 .001 .25 .001 .25 .001 .34 .001 .11 .001 .45 .001 .45 .001 .45 .001 .45 .001 .45 .001 .45 .001 .45 .001 .46 .02
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2 p .00 NS .34 .001 .45 .001 2 p .32 NS .30 NS .37 .01 .47 .05 .46 .02
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 P .00 NS .34 .001 .11 .001 .45 .001 2 P .32 NS .30 NS .37 .01 .47 .05 .46 .02
instructor $7:9$ 1.0000390 i 7 8 9 10 $54-10$ 7:9 1.0000390 i 103 76 112 52 41 384 $6+8+10:7+9$ 1 2.6589337 26 i 103 76 112 52 41 384 $6+8+10:7+9$ 1 2.6589337 26 i 103 76 112 52 41 384 $6+8+10:7+9$ 1 2.6589337 26 i 103 76 112 52 41 384 $6+8+10:7+9$ 1 2.6589337 26 i 103 76 112 54 597 3337 Total: 4 4.4249070 43 CATEGORY 4 (Sharing) Instructor Instructor 7:10 1 .0020876 i 0 2 11 6 3 22 7:8*9 1 .0019876 i 0 2 11 6 3 22 7:8*9*10:6 1 .0292349 4	.00 NS .34 .001 .11 .001 .45 .001 2 P .32 NS .30 NS .37 .01 .47 .05 .46 .02
* 103 76 112 52 41 384 6:8:10 2 1.7659343 1; ** 583 798 815 544 597 3337 Total: 4 4.4249070 4; CATEGORY 4 (Sharing) Instructor Comparison Instructor 6:9 1 0.0020876 6 7 8 9 10 ±6-10 8:9 1 .0019876 * 0 2 11 6 3 22 7:8.9.10:6 1 .0020876 * 0 2 11 6 3 22 7:8.9.10:6 1 .0020876 * 0 2 11 6 3 22 7:8.9.10:6 1 .0292349 4 ** 583 798 815 544 597 3337 Total: 4 .0881433 13 CATEGORY 5 (Regarding) Instructor Comparison df S.S S	.34 .001 .11 .001 .45 .001 2 P .32 NS .30 NS .37 .01 .47 .05 .46 .02
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$.45 .001 P .32 NS .30 NS .37 .01 .47 .05 .46 .02
CATEGORY 4 (Sharing) Instructor Comparison Instructor Comparison ff S.S J 6 7 8 9 10 ±6-10 8:9 1 .0020876 * 0 2 11 6 3 22 7*10:8*9 1 .0549332 8 ** 0 2 11 6 3 22 7*4*0*10:6 1 .0223249 4 ** 583 798 815 544 597 3337 Total: 4 .0881433 13 CATEGORY 5 (Regarding) Instructor Comparison df S.S J	² p .32 NS .30 NS .37 .01 .47 .05 .46 .02
CATEGORY 5 (Sharing) Instructor Comparison Instructor I	* P .32 NS .30 NS .37 .01 .47 .05 .46 .02
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$.32 NS .30 NS .37 .01 .47 .05
* 0 2 11 6 3 22 ** 583 798 815 544 597 3337 Total: 4 .0881433 13 CATEGORY 5 (Regarding) Instructor df S.S	.30 NS .37 .01 .47 .05 .46 .02
* 0 2 11 6 3 22 7+8+9+10:6 1 .0292349 4 ** 583 798 815 544 597 3337 Total: 4 .0881433 13 CATEGORY 5 (Regarding) Instructor df S.S 2	.47 .05
*** 583 798 815 544 597 3337 Total: 4 .0881433 1 CATEGORY 5 (Regarding) Instructor Isstructor df S.S S	.46 .02
CATEGORY 5 (Regarding) Instructor df S.S >	
Instructor Comparison	2 p
6 7 8 9 10 £ 6-10 7:8:9 2 0771831 1	.34 NS
6:10 1 .0767610 1	.33 NS
* 57 29 35 15 68 204 7*8*4:0*10 1 2.6680359 46	16 001
	.10 .001
CATEGORY. 6 (Suggesting) Instructor df S.S.	² P
Instructor 6:8 1 .0176816	.39 NS
6 7 8 9 10 ₹ 6-10 9:10 1 .0227580 6+8:9+10 1 .5633753 12	.51 NS
* 38 15 59 24 21 157 6+8+9+10:7 1 .8384789 18	.70 .001
** 583 798 815 544 597 3337 Total: 4 1.4422938 32	.17 .001
CATEGORY 7 (Stating) Instaucton df S.S.	2 p
Instructor \$:10 1 .030578	.12 NS
6 7 8 9 10 ± 6-10 7:9 1 .156100	.63 NS
* 222 440 379 288 272 1601 8+10+7+9:6 1 6.921242 27	.73 .001
** 583 798 815 544 597 3337 Total: 4 11.669830 46	.76 .001
CATEGORY 8 (Clarifying) Instructor is es	
Instructor Comparison at 5.3.	- P
6 7 8 9 10 x 6-10 6:7:8 2 .2396648 1 9:10 1 .0916291	.42 NS
* 116 139 157 151 155 718 6 •7•8:9•10 1 4.8744961 28	.87 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30	.83 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructon Generation df S.S. 5	.83 .001 ² P
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor Generation df S.S. 30 6 7 8 9 10 26-10 617:10 2 0520300	.83 .001 P
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor Comparison df S.S. 5 6 7 8 9 10 56-10 6:7:10 2 .0520300 ** 91 133 63 16 103 406 4:7:10 2 .0520300	.83 .001 P .54 NS .33 .02 75 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor 6 7 8 9 10 \$\$\$6-10 \$\$\$6:7:10 \$\$2\$.5.00 * 91 133 63 16 103 406 \$.83 .001 P .54 NS .33 .02 .75 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor 6 7 8 9 10 ± 6-10 Garrers ** 91 133 63 16 103 406 6*7*10:8*9 1 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMPLATION CATEGORY 4 ² (Charing) Total: 4 1.8037990 18	.83 .001 P .54 NS .33 .02 .75 .001 .65 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructon instructon Instructon 6 7 8 9 10 \$\$6-10 6:7:10 2 .0520300 ** 91 133 63 16 103 406 6:7*10:\$*9 1 .1384622 13 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Instructon df S.S. Instructon Instructon df S.S.	.83 .001 P .54 NS .33 .02 .75 .001 .65 .001 P
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor Instructor df S.S. 5 6 7 8 9 10 \$6-10 6:7:10 2 .0520300 * 91 133 63 16 103 406 6*7*10:8*9 1 .1384622 11 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 * (Sharing) Instructor Comparison df S.S. 5 6 7 8 9 10 \$6-10 7:9:10 2 .3420398 3	.83 .001 P .54 NS .33 .02 .75 .001 .65 .001 P .68 NS
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructon Instructon df S.S. 5 6 7 8 9 10 5 6 7 5 5 6 7 8 9 10 5 6 5 5 5 6 7 8 9 10 5 6 5 5 5 5 6 7 8 9 10 5 6 6 5	.83 .001 ** P .54 NS .33 .02 .75 .001 .65 .001 * P .68 NS .15 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATECORY 13 (Learners) Imathucton Imathucton df S.S. 5 6 7 8 9 10 \$6-10 \$6:7:10 2 .0520300 36 * 91 133 63 16 103 406 \$6++10:\$8+9 1 .133668 6 * 91 133 63 16 103 406 \$6++10:\$8+9 1 .133662 11 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Imathucton Genpanison df S.S. 56 6 7 8 9 10 \$6-10 7:9:10 2 .3420398 36 * 89 46 276 49 41 501 \$6:8 111.757520 97 * 89 46 276 49 1301 \$6:8:7	.83 .001 2 P .54 NS .33 .02 .75 .001 .65 .001 2 P .68 NS .15 .001 .53 .001 .36 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 30 CATEGORY 13 (Learners) Instructor Instructor Generation df S.S. 30 6 7 8 9 10 ξ -10 ξ :7:10 2 .0520300 * 91 133 63 16 103 406 ξ :7:10 2 .0520300 * 91 133 63 16 103 406 ξ :7:10 2 .0520300 * 91 133 63 16 103 406 ξ :7:10 2 .0520300 *** 67 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Instructor Instructor 6 7 8 9 10 ξ -10 5:5 3420398 34 ** 89 46 276 49 41 501 ξ :8 11.7575220 92 **	.83 .001 2 P .54 NS .33 .02 .75 .001 .65 .001 2 P .68 NS .15 .001 .53 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 36 CATEGORY 13 (Learners) Instructor Instructor Generation df S.S. 36 6 7 8 9 10 ξ -10 6:7:10 2 .0520300 * 91 133 63 16 103 406 ϵ +7+10:8+9 1 .133068 6 * 91 133 63 16 103 406 ϵ +7+10:8+9 1 .1384622 11 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Instructor Instructor 6 7 8 9 10 ϵ -10 7:9:10 2 .3420398 2 * 89 46 276 49 41 501 ϵ -8:17+9+10 1 25.2046322 19 * 89 46 276 49 41 501 ϵ -8:7+9+	.83 .001 2 p .54 NS .33 .02 .75 .001 .65 .001 2 p .68 NS .15 .001 .53 .001 .36 .001
** 583 798 815 544 597 3337 Total: 4 5.2057900 36 CATEGORY 13 (Learners) Imstructor Imstructor Generation df S.S. 3 6 7 8 9 10 ξ 6-10 δ : 7:10 2 .0520300 ** 91 133 63 16 103 406 δ : 7:10 2 .0520300 ** 91 133 63 16 103 406 δ : 7:10 2 .0520300 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Imstructor Generation df S.S. 2 * 89 46 276 49 41 501 δ : 8 11.7572520 92 * 89 46 276 49 41 501 δ : 8 11.7572520 92 * 89 46 276 49 41 501 δ :	.83 .001 2 P .54 NS .33 .02 .75 .001 .65 .001 2 P .68 NS .15 .001 .36 .001 2 P .36 .001 2 P .02 NS .50 .003
** 583 798 815 544 597 3337 Total: 4 5.2057900 36 CATEGORY 13 (Learners) Imstructor Imstructor Generation df S.S. 3 6 7 8 9 10 $\xi = 10$ $\delta : 7 : 10$ 2 .0520300 ** 91 133 63 16 103 406 $\delta : 7 : 10$ 2 .0520300 ** 91 133 63 16 103 406 $\delta : 7 : 10$ 2 .0520300 *** 674 931 878 560 700 3743 Total: 4 1.8037990 18 COMBINATION CATEGORY 4 ⁵ (Sharing) Imstructon Generation df S.S. 3 * 89 46 276 49 41 501 $\delta : 8 : 7 : 9 : 10$ 2 .3420398 2 * 89 46 276 49 41 501 $\delta : 8 : 7 : 9 : 10$ 125.2046322 19 * 89 46 276	.83 .001 2 P .54 NS .33 .02 .75 .001 .65 .001 2 P .68 NS .15 .001 .36 .001 2 P .02 NS .50 .001 .92 NS

* Total utterances for the category examined ** Total utterances for all categories (1-12) *** Total utterances for all categories (1-13) \$ All utterances in combination with either a category 4 or a category 5

chi-square into components to reveal the specific source of variance among the 'least effective' instructors.

An inspection of Table 18 shows a summary of the findings extrapolated from Table 17 and identifies those 'least effective' instructors whose use of categories was similar to each other. For example, in the use of Clarifying (category 8), the subgroup made up of Instructors 9 and 10 showed no statistically significant difference to one another. This was also the case with the subgroup of Instructors 6, 7 and 8. However, these two subgroups are recorded separately to indicate that there was a statistically significant difference between them in their use of category 8.

TABLE 18

SUMMARY OF FINDINGS FROM TABLE 17 TO IDENTIFY THOSE 'LEAST EFFECTIVE' INSTRUCTORS WHOSE USE OF CATEGORIES WERE SIMILAR TO EACH OTHER

HOMOGENEOUS GROUPS OF INSTRUCTORS WHOSE USE OF A CATEGORY WAS NOT SIGNIFICANTLY DIFFERENT FROM EACH OTHER

CATEGORY

6,8,9	Scanning	(Cat. 1 & 2)
7,9	Preparing	(Cat. 3)
8,9	Sharing	(Cat. 4)
7,10	Sharing	
7,9,10	Sharing	(Combinations with Cat.4)
6,10	Regarding	(Cat. 5)
7,8,9	Regarding	
7,10	Regarding	(Combinations with Cat.5)
6,8	Suggesting	(Cat. 6)
9,10	Suggesting	I ·
7,9	Stating	(Cat. 7)
8,10	Stating	
9,10	Clarifying	(Cat. 8)
6,7,8	Clarifying	ſ
6,7,10	Learners	(Cat. 13)

The findings of the chi-square tests of association (p=.05) used to establish if the use of categories remained constant throughout the lesson are displayed in Table 19.

TABLE 19

DIFFERENCES BETWEEN THE PAIRED CATEGORIES USED IN THE FIRST AND SECOND HALVES OF THE LESSON OF INSTRUCTORS IN THE 'LEAST EFFECTIVE' GROUP

CATEGORIES 1+2	CATEGORY 6	CATEGORY 13
(Scanning)	(Suggesting)	(Learners)
X ² p 1010	X ² p 10 6 .00 NS 0 7 7 8 .83 NS 10 2.33 NS 10 2.33 NS	X ² p 0 6 .89 NS 7 7.22 .01 1 8 9 1 10 10.57 .01
CATEGORY 3	CATEGORY 7	COMBINATION CATEGORY 4
(Preparing)	(Stating)	(Sharing)
X ² p 0 0 7 1 8 8 8 8 10 10	X ² p 6 7 2.19 NS 7 2.19 NS 8 .59 NS 8 9 4.00 .05 10 4.76 .05	X ² p 6 7 4.68.05 8 13 9 2.99 NS 10 16.07.001
CATEGORY 4	CATEGORY 8	COMBINATION CATEGORY 5
(Sharing)	(Clarifying)	(Regarding)
۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	X ² p 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	X ² p 6 7 .75 NS 1 .75 NS 9 1 .13 NS
CATEGORY 5	CATEGORIES 9, 10,	11 & 12
(Regarding)	Low frequencie prevented mean:	s Ingful comparison
X ² p 6 7 1.69 NS 1.40 NS 8 1.40 NS 8 9 11.27 .001 10	<u>Note:</u> i)-=Low frequence comparis ii) X ² figure effective paired un significe	uency prevented meaningful son with X ³ es only calculated for 'least' e' instructors whose use of tterances were <u>not</u> antly different

The table reveals that there were no significant differences between the two halves of the lesson in the use of Preparing (category 3), Suggesting (category 6), Clarifying (category 8) and Regarding (combination category 5). Only one instructor varied over time in the use of Scanning (categories 1 and 2), and Regarding (category 5). Over half the instructors showed a variance over time in their use of Stating (category 7), Learners (category 13) and Sharing (combination category 4). However, due to the low frequencies of Category 9 (Excusing, Unintentional), Category 10 (Excusing, Legitimate), Category 11 (Apology) and Category 12 (Penance), meaningful comparison using chisquare tests for statistically significant differences was not possible.

Difference or Similarities in the Use of Selected Paired Utterances by the 'Least Effective' Group

The proportional use by the 'least effective' instructors of the ten most frequently occurring paired utterances are displayed in Table 20. It can be seen from this table that the five most frequently occurring paired utterances used by the 'least effective' instructors involved no verbal interaction between learners (category 13) and their instructor.

M	DST FREQUENTLY			Inst	ructo	70		RANK O		T SCORES	
PA	IRED UTTERANCES	6	7	8	9	10	x				
	13 7	2.23	6.34	1.82	. 54	4.01	3.24		•		
	7 - 13	1.63	4.19	1.48	. 36	3.72	2.43	7 - 7 (Stating	followed	by Stating)	13
*	13 - 5	3.86	2.80	2.96	1.25	7.01	3.58	7 - 8 (Stating	H	Clarifying)	9
	1 - 13	1.63	6.34	1.25	. 54	2.29	2.68	8 - 7 (Clarify	ing "	Stating)	7
	5-13	2.53	.65	1.37	1.07	4.57	1.95	3 - 7 (Prepari	ng "	Stating)	4
	7 - 7	4 46	17.85	8 10	21 47	13 45	12 87	8 - 8 (Clarify	ing "	Clar ifying)	4
	7 - 4	6 84	10.11	5 93	15 74	A 50	0.28	13 - 5 (Learner	H	Regar ding)	4
		0.04		<u> </u>		7.37	9.20	1 -13 (Scannin	9 "	Learner)	- 39
**	8-/	3.57	/.10	5.13	14.13	8.30	7.28	13 - 7 (Learner	••	Stating)	- 39
	3-7	6.39	4.95	2.05	4.11	3.15	4.07	7 -13 (Stating		Learner)	2
	8 - 8	3.27	2.15	.91	6.80	6.72	3.60	5 -13 (Regardi	na "	Learner)	2

A COMPARISON OF THE PROPORTIONAL USE OF SELECTED PAIRED UTTERANCES BY THE 'LEAST EFFECTIVE' GROUP

<u>Note</u>: 1) * Criteria for selection was the five most frequently occurring paired utterances used by the 'most effective' instructors ii) ** Criteria for selection was the five most frequently occurring

paired utterances used by the 'least effective' instructors
 iii) Occurrence of paired utterances expressed as a percentage of the total utterances uses by each instructor

iv) A paired utterance such as 13 - 7 means that a <u>learner</u> utterance was followed by an instructor <u>stating</u> his/her intent

Reference to Table 21 reveals that there were statistically significant differences at the .05 level in the use of paired utterances by the 'least effective' group and the 2 x 2 auxiliary tables identify the particular instructor who was the source of variance in the use of each paired utterance.

Table 22 is extrapolated from the findings of Table 21 to identify those 'least effective' instructors whose use of paired utterances were similar. For example, in the use of paired utterance Stating followed by Learner (7-13), the subgroup made up of Instructors 6 and 8 showed no

DIFFERENCES IN THE USE OF THE SELECTED PAIRED UTTERANCES BY THE 'LEAST EFFECTIVE' GROUP

PA	IRED	UTTER	RANCE	13-7			Instructor	46	с с	¥ 2	
(Lear	ner:	Statir	ng)			Comparison	ur	3.3.	~	~ P
	6	1	1	9	10	Z 6-10					
*	15	59	16	3	28	121					
**	674	931	878	560	700	3743	Total:	4	1.5888928	5.79	NS
PA	IRED	UTTE	RANCE	7-13			Instructor	df	S .S.	X1	,
(Stat.	ingl	earne	er)			Comparison				
	6	7	- Ins. 8	Eructor 9	10	£ 6-10	7:10 6:8	1	.0090016	a .38 0 .04	NS NS
*	11	10	12	2	26	01	6+8:7+10	1	.4730390	0 19.94	.001
**	674	931	878	560	20	3743	Total	-	7662005	6 32 30	.001
DA	TPEN	TITTE	ANCE	12 6	700					- 52.50	
1				17-7			Comparison	df	S.S .	X 2	Р
(L	earn 6	BrKe 7	egard:	ing	10	£ 6-10	6:7:8	2	.0487344	1.41	NS
*	26	26	26	7	40	134	9:10	1	1.0286136	29.80	.001
**	674	931	878	560	700	3743	Total.	4	1.2192762	35 32	.001
DA	TPER		DANCE	1.11							
	Car			1-12			Instructor Comparison	df	S.S .	X 2	Р
(. 3C8N	n1ng- 7	-lear 1	ner) 9	10	₹ 6-10	6:1	1	.0054827	. 21	NS
•			•••	•		100	7:9:10	Ž	1.3439618	51.69	.001
***	474	27	11	3	10	1743	Tot-1		.41/0187	47 03	.001
		731		200	/00	3/43	10(41:		1./004032	91.33	.001
<u> </u>	TKFD	UTIER	ANCE	2-12			Instructor Companian	d£	S .S.	X 2	p
()	Kegai	ding-	-Lear	ner)	10	E 6-10	110	1	.0029826	. 16	NS
	•	'.	•	•			617:10	Ż	.6179440	32.31	.001
*	17	6	12	6	32	73	8+9:6+7+10	1	.1139529	5.96	.02
	6/4	931	878	560	700	3743	Total:	4	.7348795	38.43	.001
<u>P/</u>	IRED	UTTE	RANCE	7-7			Instructor	df	S.S.	X 2	
(Stat	ing	Stati	ng)	10	- 4-10	1.a	1	657761	4 04	
	•		•	•		2 0-10	6:8:10	2	2.814636	25.13	.001
# 	30	166	71	120	94	481	7+9:6+8+10	1	9.933138	88.70	.001
**	0/4	931	878	560	700	3743	Total:	4	13.200515	17.87	.001
PA	IRED	UTTE	ANCE	/-8			Instructor	d£	S.S.	X 2	р
(S	tati	ngC	larify	ying)			2,1A	,	0110221		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	6	1	1 1 1 1 1	9	10	≈ 6-10	6:8	1	.0310483	.13	NS
*	46	94	5 2	88	67	367	6+8:7+10 6+8:7+10:0	1	1.0060760	11.96	.001
**	674	931	878	560	700	3761	Toral	4	3.7823750	44.97	.001
DA	TPED	IITTE	DANCE								
10	Jane		MINUL .	0-/			Instructor	df	S .S.	X 2	,
(L	1911	i yıng-	5781	1 ng)			TOMPARLAON 7.1A	1	0572102	9 6	Ne
	6	1	1 M & 2 8	AUCEON 9	10	26-10	618	i	.0933229	1.38	NS
*	2⊾	66	45	79	58	272	6+8:7+10 6+8+7+10:0	1	.7925218	11.76	.001
**	674	931	878	560	700	3743	Total	4	4.0241970	59.72	.001
PA	TRED		ANCE	3-7							
(0		VIICT	Ctat -	<u>, , , , , , , , , , , , , , , , , , , </u>			IRAERUCEOR Comparison	df	S .S.	X 2	P
1	repai	1119	JUBU1	, '''y''	10	≈ 6-10	7:9:10	2	.0882722	2.27	NS
*	47	44	18	22	"	152	8:6 7.9.10.8.4	1	.7147924	18.35	.001
**	4J 674	40 911	10 878	560	700	3763	Total,	4	.8486538	21.79	.001
0.4	TOCA		DANCE	9.00							
<u></u>	INCU	UIIL	Charles -	<u>0-0</u>			Instructor Comparison	df	S.S.	χ 2	р
(C)	arif	yıng-	118 [1] 1#4	TYING)			9:10	1	.0001587	.00	NS
	6	7	1	9	10	£6-10	6:7	ī	.0486810	1.40	NS
*	22	20	8	38	47	135	9+10:6+7	1	1.2035236	34.62 23.98	.001
**	674	931	878	560	700	3743	Total:	4	2.0858414	60.00	.001
							L				

* Total incidences for the paired categories examined ** Total utterances for all categories (1-13) statistically significant difference to one another. This was also the case with Instructors 7 and 10. However, these two subgroups are recorded separately to indicate that there was a statistically significant difference between them in their use of the paired utterance 7-13.

TABLE 22

SUMMARY OF FINDINGS FROM TABLE 21 TO IDENTIFY THOSE 'LEAST EFFECTIVE' INSTRUCTORS WHOSE USE OF PAIRED UTTERANCES WERE SIMILAR TO EACH OTHER

HOMOGENEOUS GROUPS OF INSTRUCTORS WHOSE USE OF A PAIRED UTTERANCE WAS NOT SIGNIFICANTLY DIFFERENT FROM EACH OTHER

PAIRED CATEGORY

6,7,8,9,10	(Learner	followed	by Stating)	(13-7)
6,8	(Stating	11	Learner)	(7-13)
7,10				
6,7,8	(Learner	••	Regarding)	(13-5)
6,8	(Scanning		Learner)	(1-13)
8,9	(Regardine	g "	Learner)	(5-13)
7,9,10	(Stating	**	Stating)	(7-7)
6,8	(Stating		Clarifying)	(7-8)
7,10				
7,8,9,	(Clarifyi	ng "	Stating)	(8-7)
7,9,10	(Preparing	3 "	Stating)	(3-7)
6,7	(Clarifyi	ng "	Clarifying)	(8-8)
9,10		-		

As shown in Table 23, the use of five out of the ten paired utterances examined remained constant throughout the lesson. In the use of paired utterances 13-7, 7-13, 13-5 and 1-13, no more than one instructor showed a significant difference in the first and second halves of the lesson (p=.05).

DIFFERENCES BETWEEN THE PAIRED CATEGORIES USED IN THE FIRST AND SECOND HALVES OF THE LESSON BY THE 'LEAST EFFECTIVE' INSTRUCTORS

(LearnerStating)	PAIRED_UITERANCE_1-13 (ScanningLearner)	<u>PAIRED UTTERANCE 7-8</u> (StatingClarifying)	
χε μ	X ² p	χ ε p	
L 6 1.67 NS J 6 1.67 NS J 7 .62 NS L 8 6.25 .02 B 9 .00 NS L 10 2.29 NS	10 6 4.50.05 10 7 .03 NS 11 9 10 10	L 6 2.17 NS J 7 .04 NS J 8 .70 NS J 9 L 10 .06 NS	
PAIRED UTTERANCE 7-13	PAIRED UTTERANCE 5-13	PAIRED UTTERANCE 8-7	
(StatingLearner)	(RegardingLearner)	(ClarifyingStating)	
X ² p 0 6 .87 NS 0 7 11.31 .001 1 8 .10 NS 1 9 1 10	X ² p 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	X ² p 0 6 .17 NS 0 7 .00 NS 1 8 .56 NS 9 1 10 1.10 NS	
PAIRED UTTERANCE 13-5	PAIRED UTTERANCE 7-7	PAIRED UTTERANCE 3-7	
(LearnerRegarding)	(StatingStating)	(PreparingStating)	
X ² p 0 6 1.38 NS 0 7 3.85 .05 1 8 .62 NS 9 10	Significant difference at .05 level and so no meaningful comparison could be made.	X ² p 6 7 1.39 NS 1 8 9 .04 NS 10 .36 NS	
X ² p 0 6 1.38 NS 0 7 3.85 .05 1 8 .62 NS 1 9 10 Note: i)-=Low frequenc	Significant difference at .05 level and so no meaningful comparison could be made. y prevented meaningful	X ² p 6 7 1.39 NS 8 9 .04 NS 10 .36 NS PAIRED UITERANCE 8-8 (Clarifying-Clarifying))
X² p 0 6 1.38 NS 0 7 3.85 05 1 8 .62 NS 10 9 10 Note: i)-= Low frequence comparison iii) X3 firmer	Significant difference at .05 level and so no meaningful comparison could be made. y prevented meaningful with X ²	$\begin{array}{cccc} X^{t} & p \\ \hline & & \\ $,
X² p 0 6 1.38 NS 0 7 3.85 .05 1 8 .62 NS 9 10	Significant difference at .05 level and so no meaningful comparison could be made. y prevented meaningful with X ² nly calculated for 'least'	$\begin{array}{cccc} X^{2} & p \\ \hline 0 & 7 & 1.39 & NS \\ \hline 1 & 7 & 1.39 & NS \\ \hline 1 & 9 & .04 & NS \\ \hline 10 & .36 & NS \end{array}$ $\begin{array}{cccc} PAIRED UTTERANCE 8-8 \\ (Clarifying-Clarifying) \\ \hline 1 & 5 \\ \hline 2 & 6 & 1.64 & NS \end{array}$)
X² p 0 6 1.38 NS 0 7 3.85 .05 1 8 .62 NS 10 10 Note: i)-= Low frequenc comparison ii) X³ figures o opired	Significant difference at .05 level and so no meaningful comparison could be made. y prevented meaningful with X ² nly calculated for 'least' nstructors whose use of	$\begin{array}{cccccccccccccccccccccccccccccccccccc$)

Differences or Similarities Between the Probability of One Category Following Another in Selected Paired Utterances Used by the 'Least Effective' Group

From Table 24 it can be seen that there were no significant differences between the five 'least effective' instructors in the probability of one category following another in the paired utterances of 1-13 and 5-13. It can be extrapolated from these figures that on average, the probability of Learners (category 13) responding after an instructor asks a question (category 1) was 60% of the time, and the probability of Learners (category 13) responding after an instructor acknowledges or gives a learner positive praise (category 5) was 40% of the time.

Table 25 summarizes the average probability of one category following another in the paired utterances used by the 'least effective' group. For example, from these findings it can be expected that when a Preparing category (category 3) is used by a 'least effective' instructor, it will be followed 51% of the time by a Stating category (category 7). Similarly, when a Stating category (category 7) is used by a 'least effective' instructor, it is probable that 43% of the time it will be followed by a further Stating category, 28% of the time by a Clarifying category (category 8) and only 9% of the time by a Learner response (category 13).

DIFFERENCES IN PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN SELECTED PAIRED UTTERANCES FOR 'LEAST EFFECTIVE' GROUP

PAI	PAIRED UTTERANCE 13-7										
(1	earne	erSt	ating)		- () 0	Instructor Comparison	df	S.S.	X 2	P
	0 15	7	16	у 1	70 28	121	6:8:9:10 6-8+9+10:7	3	.629582	3.01	NS
**	91	133	63	16	103	406	Total:	4	4.821520	23.05	.001
PA	RED	JTTER/	WCE 7	-13			Instructor			~ 1	
(!	Stati	ngLe	renze)			Comparison	ar	5.5.	**	P
	6	7	Instr 8	uctor 9	10	₹6-10	6:8 7:10	1	.0214927	.32	NS
*	11	39	13	2	26	91	6+8:7+10 6+7+8+10:9	1	.4001849 1.3406654	5.97 20.01	.02
**	152	394	228	257	229	1260	Total:	4	1.7930139	26.75	.001
PA	IRED	UT TER/	ANCE 1	<u>3-5</u>			Instructor	df	<u> </u>	x 2	
(L	earne	rRe	gardin	g)		- 4.10	Comparison	,	1582840	72	NS
	•	,	•	,	10	20-10	7:6	i	.4398500	1.99	NS
	26	26	26	7	49	134	7+6:8+9+10 Totol:		4.7898778	21.66	.001
	BEU I	133 177607	NGE T	13	103	400	Turdhurdar				
10			Barne	<u>-+/</u> r)			Instructor Comperison	df	S .S.	X 2	P
	6	7	1	` 9	10	£6-10					
*	11	59	11	3	16	100					
**	15.	91	28	6	27	167	Total:	4	1.742086	7.25	NS
PA	RED	JTTER/	ANCE 5	-13			Instructor	df	S.S.	X 2	
(F	egard	ding	Learn	er)			Comparison				
	•	'.	•	•		- 0-10					
*	17	6 29	12	6 13	32	73	Total	4	1 518598	6 27	NS
DAI	REDI	IT TERA	NCE 7								
(it at in		ating)			Comparison	df	S.S.	X 2	Р
	6	1	1	` 9	10	€ 6-10	7:9:10	2	.464460	1.97	NS
*	30	166	71	120	94	481	6+1:7+9+10	<u>i</u>	7.315817	31.00	.001
**	152	394	228	257	229	1260	Total:	4	8.966248	37.99	.001
PAI	REDL	JT TERA	NCE 7	-8			Instructor	df	S.S.	X 2	р
(St	ating	gÇle	rifyi	ng)	1.0	- 4-10	Comparison	2	4506380	2 26	NG
	•	, ,	•	7	27	20-10	7:8	į	.0159500	.08	NS
	46 152	94 194	52 228	58 257	0/ 229	1260	1+8:0+9+10 Total:	4	3.0996198	15.53	.001
PA	IRED	UTTER	ANCE B	-7			Instructor				
(C	(Clarifying-Stating)					Comparison	df	S.S.	X 3	Р	
	6	1	8	9	10	z 6-10	7:8:9	2	1.223905	5.01	NS
*	24	66	45	7 9	58	272	7+8+9:6+10	<u>i</u>	3.876370	15.88	.001
**	103	135	111	145	148	642	Total:	4	6.633389	27.17	.001
PAIRED UTTERANCE 3-7					Instructor	df	S.S.	χ2	p		
(P1	epari	ingS	itatin	g)	14	= 6-10	LOMPARLAON	2	1710040	. 68	NS
•	43	, 14	1.			169	7:8	ī	4.7722100	19.12	.001
**	43 88	40 69	63 10	43	39	302	Total:	4	5.0301734	20,12	.001
PA	IRED	UTTER	ANCE	3-8			Tastanatar				
(<u>C</u> 1	(Clarifying_Clarifying)					Comparison	df	S.S.	X 2	P	
	6	7		1	10	£ 6-10	6:9	1	.1415226	.85	NS
	22	20	8	38	47	135	6+9:7+8+10	1	. 4049304	2.44	NS
*											

Total incidences for the paired categories examined
 ** Total utterances for the preceding category in the pair

SUMMARY OF TABLE 24 TO RANK THE \bar{X} PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN THE PAIRED UTTERANCES USED BY THE 'LEAST EFFECTIVE' INSTRUCTORS

PAIRED UTTERANCE EXAMINED

 $\overline{\mathbf{X}}$ Probability

(1-13)	Scanning followed by	Learner	60%
(3-7)	Preparing "	Stating	51%
(8-7)	Clarifying "	Stating	49%
(7-7)	Stating "	Stating	438
(5-13)	Regarding "	Learner	40%
(13-5)	Learner "	Regarding	33%
(7-8)	Stating "	Clarifying	28%
(8-8)	Clarifying "	Clarifying	28%
(13-7)	Learner "	Stating	23%
(7-13)	Stating "	Learner	98
	-		

An inspection of Table 26 reveals that in seven out of the ten paired categories examined, the probability of one category following another did not differ significantly (p=.05) during the lesson. While there was variance between instructors in the paired utterance 13-5, only one instructor showed variance throughout the lesson in the use of the paired utterances 7-13 and 7-7.

DIFFERENCES IN THE PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN PAIRED UTTERANCES USED BY THE 'LEAST EFFECTIVE' INSTRUCTORS DURING THE FIRST AND SECOND HALVES OF THE LESSON

PAIRED UTTERANCE 13-7	PAIRED UTTERANCE 1-13	PAIRED UTTERANCE 7-8			
(rearmerstaring)	(ScanningLearner)	(StatingClarifying)			
	ы ^{Х1} р	х* р			
	ບໍ່ 6 .00 NS	ຼິິ 6 2.57 NS			
	9 7 .00 NS	9 7 .08 NS			
H 9	1 0 1.20 NS	E 8 1.26 NS			
2 10 .04 NS	9 10 1.28 NS	5 9 .22 NS			
Ir		H 10 .27 NS			
PAIRED UTTERANCE 7-13	PAIRED UTTERANCE 5-13	PAIRED UTTERANCE 8-7			
(StatingLearner)	(RegardingLearner)	(Clarifying-Stating)			
		· ····································			
0 6 76 NS	H A P	h X ^z p			
9 7 14.79 NS	1 6 .27 NS	6			
ភី 8 . 88 NS		0 / .58 NS			
ي 10 4.41 .05	9 .00 NS				
II	Ë 10 .03 NS	j 10			
FAIRED UTTERANCE 13-5	PAIRED UITERANCE 7-7	PAIRED UTTERANCE 3-7			
(LearnerKegarding)	(StatingStating)	(PreparingStating)			
⊾ X [±] p	X* n	ו .			
Ö. 6.63 NS	ц <i>р</i>				
9 7 1.90 NS	U 0 .29 NS U 7 6 11 01	6 .00 NS			
E 8 6.08.02	8 2.26 NS	ົ້ານີ້ 🖌			
6 9 E 10 10 15 01	9 .83 NS	5 9 .71 NS			
H 10 10.13.01	E 10 .00 NS	H 10 1.25 NS			
Note: i) - = low frequency	PAIRED UTTERANCE 8-8				
	(Clarifying-Clarifying)				
(i) Y^2 figures = 1	, X* р				
	0 6 . 33 NS				
errective' ins	1 7				
paired utteran					
significantly	different	5 9 1.45 NS			

Differences or Similarities Between Selected Sequences of Three Utterances Used by the 'Least Effective' Group

Table 27 identifies in rank order the five sequences of three utterances most frequently used by the 'least effective' instructors.

Table 27, indicates that the predominant pattern of three utterances is the use of the combinations of the Stating (7) and Clarifying (8) categories. Table 28 has been extrapolated from Table 27 and has been included to highlight the lack of interactive communication between learners and their instructor.

TABLE 27

RANKING OF INCIDENCE OF SEQUENCES OF THREE UTTERANCES FREQUENTLY USED BY THE 'LEAST EFFECTIVE' INSTRUCTORS

			RANK ORDER					
<u> </u>			1	2	3	4	5	
- ਸ਼	ßS	6	7+8+8	7→7→8	7→8→7	135+13	3-7-8	
TIV		7	7 → 7 → 7	7→8→7	7→7→8	8-+7-+7	7-1+13	
т ЕҒҒЕС	TRUCTO	8	7→8→7	7 → 7 → 7	8 → 7 → 7 7 → 7→8		8→7→8 47→7→8 13→5+13	
EAS	SNI	9	7→77	7-8-7	8-+77	7-7-8	8-+7-+8	
-		10	7→7→7	7→7→8	7-8-7	13-5-13	8-7-7	

<u>Criteria for selection</u>: Sequences of three utterances were identified if the initial paired sequence appeared 5% or more of the frequency total of each instructor. These sequences were ranked according to their frequency for each instructor.
TABLE 28

SUMMARY FROM TABLE 27 TO IDENTIFY PATTERNS IN THE SEQUENCES OF THREE UTTERANCES FREQUENTLY USED BY THE 'LEAST EFFECTIVE' INSTRUCTORS

7-7- 8	STATING	STATING	CLARIFYING
7-8- 7	STATING	Clarifying	STATING
7-7- 8	STATING	STATING	CLARIFYING
7-1-13	STATING	SCANNING	Learner
8-7- 7	CLARIFYING	STATING	STATING
8-7- 8	CLARIFYING	STATING	CLARIFYING
7-8- 8	STATING	CLARIFYING	CLARIFYING
3-7- 8	PREPARING	STATING	CLARIFYING
13-5-13	Learner	REGARDING	Learner

i)	A sequence of three utterances such as 7-7-8 is read as:
	'instructor stating, followed by instructor stating,
	followed by further instructor clarification'
	i)

 Sequences of three utterances have been arranged to highlight the predominant use of Stating (Cat.7) and Clarifiying (Cat.8) and the lack of verbal interaction between the instructors and their learners.

Findings in Response to Research Question 2.0

Research question 2 asked: Do the verbal communication behaviors used by groups of the 'most effective' instructors differ from those verbal communciation behaviors used by groups of 'least effective' instructors.

To answer this question adequately only those 'most effective' or 'least effective' instructors who showed no significant differences (p=.05) in their use of categories were chosen for comparison. Thus only those subgroups of instructors already identified as homogeneous in response to research Questions 1.0 and 1.1 were compared. Because of the low frequencies of Category 9 (Excusing, Unintentional), Category 10 (Excusing, Legitimate), Category 11 (Apology) and Category 12 (Penance), meaningful comparison using chi-square tests for statistically significant differences was not possible. As Figure 15 shows, the 'least effective' group tended to use these categories more than the 'most effective' group of instructors. Category 10 (Excusing, Legitimate) was the category most frequently used by the 'least effective' instructors, while the 'most effective' group were the only instructors to use Category 12 (Penance).

Figure 16 has been included to provide an overview of the proportional use of the combination of the various categories with Category 4 (Sharing) and Category 5 (Regarding). From this figure it can be seen that the 'most effective' group used the Regarding combination category far in excess of the 'least effective' instructors. On the other hand, the 'least effective' group used the Sharing combination category far in excess of the 'most effective' instructors.



FIGURE 15

DIFFERENCES IN THE PROPORTIONAL USE OF CATEGORIES IN THE 'REPAIRING' CLASSIFICATION



FIGURE 16

DIFFERENCES IN THE PROPORTIONAL USE OF COMBINATION CATEGORIES

Differences in Proportional Use of Categories by the 'Most Effective' and 'Least Effective' Groups

In Table 29, the proportional use of categories by subgroups of 'most effective' and 'least effective' instructors are compared. Chi-square tests for independent samples show the statistical significance of differences between each group in their proportional use of a category.

In six out of the ten categories examined there were significant differences in their proportional use by the 'most effective' and 'least effective' subgroups at the .01 or .001 levels. In the use of the other four catgories examined, at least one of the subgroups compared showed no significant difference in the use of that category.

A closer inspection of these figures reveal that the 'most effective' subgroups used categories in the following ratios to the 'least effective' subgroups: Scanning 5:1, Regarding 3:1 and 4:1, Suggesting 7:4, Sharing (combination category) 12:7, and regarding (combination category) 4:1 and 2:1. On the other hand, the ratio in the use of categories by the 'least effective' to the 'most effective' subgroups were Preparing 3:2 and Clarifying 3:2 and 2:1.

With the use of both Sharing (category 3) and Stating (category 7) there were significant differences between the 'most effective' and 'least effective' subgroups but the ratios of each subgroup were not constant. <u>i.e</u>. The ratio of the 'most effective' to the 'least effective' subgroups in the use of Sharing (category 4) was 1:6 and 3:1 and Stating (category 7) was 4:5 and 5:4.

<u></u>	Instructor	Proportion of categories to total utterances (1-12)	χ 2	p
	* 1+4+5 ** 6+8+10	<u>385 : 2642</u> 58 : 1995	178.99	. 0 (
CATEGORY	<u>Y 3</u> (Preparing) Instructor	Proportion of category to total	χz	 p
		utterances (1-12)		·
	* 1+2 ** 7+9	$\frac{100 : 1575}{128 : 1342}$	10.23	. 0
	* 3+4+5 ** 7+9	$\frac{316}{128}$: $\frac{3139}{1342}$. 30	N :
CATEGOR	Y 4 (Sharing) Instructor	Proportion of category to total utterances (1-12)	χ 2	p
	* 1+5 ** 7+10	<u>4 : 1808</u> 5 : 1395	. 58	N.
	* 1+5. ** 8+9	$\frac{4 : 1808}{17 : 1359}$	12.46	. 0
	* 3+4 ** 7+10	$\frac{23 : 1974}{5 : 1395}$	6.45	. 0 :
	* 3+4 ** 8+9	$\frac{23}{17} : \frac{1974}{1359}$.14	NS
CATEGOR	Y 5 (Regarding) Instructor	Proportion of category to total utterances (1-12)	X 2	р
	* 2+4 ** 7+8+9	<u>185 : 1666</u> 79 : 2157	80.73	. 0 (
	* 1+3 ** 7+8+9	$\frac{252}{79}$: 1783 79 : 2157	149.80	. 0 0
CATEGOR	Y 6 (Suggesting) Proportion of		
	Instructor	category to total utterances (1-12)	χ 2	р
	* 2+3+4 ** 6+8	<u> 199 : 2806</u> 121 : 1942	1.36	NS
	* 2+3+4 ** 9+10	$\frac{199 : 2806}{45 \cdot 1041}$	9.81	. 01

TABLE 29

DIFFERENCES IN THE PROPORTIONAL USE OF CATEGORIES BY THE 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' SUBGROUPS

<u>CATEGORY 7</u> (Stating) Instructor	Proportion of categories to total utterances (1-12)	X *	р
* 1+2 ** 7+9	<u>651 : 1412</u> 728 : 1342	9.30	.01
* 1+2 ** 8+10	$\frac{651 : 1412}{577 : 1475}$	14.41	.001
<u>CATEGORY 8</u> (Clarifying) Instructor) Proportion of categories to total utterances (1-12)	X Z	p
* 2+3+4+5 ** 6+7+8	<u>463 : 3971</u> 412 : 2196	58.50	.001
* 2+3+4+5 ** 9+10	<u>463 : 3971</u> 306 : 1141	159.42	.001
CATEGORIES 9, 10, 11	& 12		
Low frequence	cies prevented meaningf	ul compa	rison
CATEGORY 13 (Learners)			
Instructor	Proportion of categories to total utterances (1-13)	X 2	p
* 1+3+5 ** 6+7+10	$\frac{1092}{327}$: 4040	149.10	.001
* 2+4 ** 6+7+10	$\frac{801 : 2467}{327 : 2305}$	220.63	.001
COMBINATION CATEGORY	4 Proportion of		
(Sharing) Instructor	categories to total utterances (1-12)	X 2	p
* 1+3 ** 7+9+10	207 : 1783 136 : 1939	24.11	.001
* 2+5 ** 7+9+10	$\frac{166 : 1997}{136 : 1939}$	2.34	NS
COMBINATION CATEGORY	5 Proportion of		
(Regarding) Instructor	categories to total utterances (1-12)	χ τ	p
* 1+3+5 ** 7+10	$\frac{240 : 2948}{34 : 1395}$	52.03	. 001
* 2+4 ** 7+10	$\frac{74:1666}{34:1395}$	8.96	.01

TABLE 29 (cont.)

- <u>Note</u>: i) * Those 'most effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.
 - ii) ** Those 'least effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.

Differences in the Use of Selected Paired Utterances by the 'Most Effective' and 'Least Effective' Subgroups

Table 30 provides a comparison of selected paired categories used by the 'most effective' and 'least effective' subgroups. There were statistically significant differences between the 'most effective' and 'least effective' instructors in their use of eight of the nine paired utterances compared. The exception was in the use of the paired category 3-7 (Preparing followed by Stating).

PAIRED UTTER	ANCE 13-7			
(LearnerS	itating) Instructor	Proportion of paired categories to total utterances (1-13)	X²	р
	* 1+2 ** 6+7+8+9+1	$\begin{array}{r} 197 : 2150 \\ 121 : 3743 \end{array}$	94.06	.001
	* 3+5 ** 6+7+8+9+1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	50.77	.001
PAIRED UTTER	ANCE 7-13			
(Statingl	earner) Instructor	Proportion of paired categories to total utterances (1-13)	X 2	р
	* 1+5 ** 6+8	$\frac{174}{24}$: 2513 24 : 1552	59.75	.001
	* 1+5 ** 7+10	$\frac{174 : 2513}{65: 1631}$	15.72	.001
PAIRED UTTER	ANCE 13-5			
(LearnerRe	garding) Instructor	Proportion of paired categories to total utterances (1-13)	χ 2	p
	* 1+5 ** 6+7+8	$\frac{222 : 2513}{78 : 2483}$	71.71	.001
	* 2+3+4 ** 6+7+8	$\frac{224 : 3994}{78 : 2483}$	20.64	.001
PAIRED UTTER	ANCE 1-13			
(Scanning	Learner) Instructor	Proportion of paired categories to total utterances (1-13)	χ 2	р
	* 1+4+5 ** 6+8	$\frac{228 : 3743}{22 : 1552}$	53.29	.001
PAIRED UTTER	ANCE 5-13			
(Regarding-	-Learner) Instructor	Proportion of paired categories to total utterances (1-13)	X 2	р
	* 3+4+5 ** 8+9	<u>79 : 2150</u> 18 : 1438	19.23	.001

TABLE 30

DIFFERENCES IN THE USE OF SELECTED PAIRED UTTERANCES BY THE 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' SUBGROUPS -

TABLE 30 (cont.)

PAIRED UTTER	<u>ANCE 7-7</u>			
(StatingSi	tating)			
	The 7-7 pair	ed categories within the	ne 'effe	ctive' an
101	ss effective	groups were significat	ntly dif:	terent at
.05	level and so	no meaningiul comparis	son could	i be made
PAIRED UTTER	ANCE /-8			
(StatingCl	aritying)	Proportion of paired		
	Instructor	categories to total	χ 2	р
		utterances (1-13)		
	* 2+3+4+5	<u> 210 : 5594</u>	19 31	001
	** 6+8	98 : 1552		
	* 2+3+4+5	210 : 5594		
	** 7+10	161 : 1631	97.00	.001
PAIRED UTTER	ANCE 8-7			
(Clarifying-	-Stating)	Proportion of paired		
	Instructor	categories to total	X 2	p
		utterances (1-13)		
	* 1+2	39 : 2150		• • •
	** 6+8	69 : 1552	22.04	.001
	★ 1⊥2	39 . 2150		
	** 7+10	124 + 1631	75.35	.001
	ANCE 3-7			
(Preparing	Stating)	Proportion of paired		
(Topuring)	Instructor	categories to total	X 2	n
	1110 01 00 001	utterances (1-13)		۴
	* 1+3+4	146 . 3670		
	** 7+9+10	$\frac{140}{91}$: 2191	.10	NS
	115110			
	* 2+5	$\frac{60:2837}{2101}$	17.63	.001
	** /+9+10	91 : 2191		
PAIRED UTTER	ANCE 8-8			
(Clarifying-C	laritying)	Proportion of paired	v a	
	Instructor	categories to total	Xž	р
		utterances (1-13)		
	* 2+3+4+5	<u> 26 : 5594</u>	15.98	. 0 0 1
	** 6+7	42 : 1605	0	,
	* 2+3+4+5	26 : 5594	ar 4	• • •
	** 9+10	85 : 1260	254.75	.001
		· · · · · · · · · · · · · · · · · · ·		

<u>Note</u>: i) * Those 'most effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.

ii) ** Those 'least effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.

TABLE 31

RATIOS BETWEEN 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' SUBGROUPS IN THEIR USE OF PAIRED UTTERANCES

PAIRED UTTERANCE EXAMINED

RATIO OF USE

'Most Effective' : 'Least Effective'

7 -	13	(STATING	followed	by	Learner)	5:1	&	7:4
1 -	13	(SCANNING	**	_	Learner)	4:1		
13 -	7	(Learner			STATING)	3:1	&	7:2
13 -	5	(Learner			REGARDING)	3:1	۶	2:1
5 -	13	(REGARDING	G "		Learner)	3:1		

'Least Effective' : 'Most Effective'

8	-	8	(CLARIFYING	followed	by	CLARIFYING)	9:1
7	-	8	(STATING	**	-	CLARIFYING)	3:1
8	-	7.	(CLARIFYING	11		STATING)	2:1
3	-	7	(PREPARING	**		STATING)	2:1

Note: The use of all paired utterances by the 'most effective' and 'least effective' subgroups compared were significantly different at the .001 level.

As shown in Table 31, every paired utterance that included interaction between the learners and their instructor, was used by the 'most effective' subgroups from twice to five times as often as the 'least effective' subgroups. On the other hand, the 'least effective' subgroups used paired utterances that contained Preparing, Stating or Clarifying categories from twice to nine times as much as the 'most effective' subgroups.

Differences	in the P	robability	of One	Category
Following	Another :	in Selected	Paired	Utterances
Used by	the 'Most	t Effective	' and '	Least
Effect	tive' Subo	groups		

An examination of Table 32 reveals that there were similarities in the probability of an instructor using an explanation (Stating, category 7) after a Learner's response (category 13); and a Learner (category 13) responding to an instructor's acknowledgement (Regarding, category 5). There was a significant difference (p=.05) in the probabilities of one category following another in all other paired utterances examined.

From the comparison of these probabilites displayed in Table 33, major differences are apparent. For example in the 'least effective' subgroups, the probability of a Clarifying category following immediately after a previous Clarifying category (8-8) was 20% more than the 'most effective' subgroup of instructors.

TABLE 32

DIFFERENCES IN THE PROBABILITY OF ONE CATEGORY FOLLOWING ANOTHER IN SELECTED PAIRED UTTERANCES BETWEEN SUBGROUPS OF 'MOST EFFECTIVE' AND 'LEAST EFFECTIVE' INSTRUCTORS

PAIRED UTTERANCE 13-7 (LearnerStating) Instructors	Total Total category category 7 13	X 2	p
* 1+2+3+5 ** 6+8+9+10	$\frac{415 : 1496}{62 : 273}$	2.96	NS
PAIRED UTTERANCE 7-13			
(StatingLearner) Instructors	Total Total category category 13 7	X Z	p
* 1+3+5 ** 6+8	$\frac{248 : 903}{24 : 380}$	123.93	.001
* 1+3+5 ** 7+10	$\frac{248 : 903}{65 : 623}$	65.57	.001
* 2+4 ** 6+8	$\frac{274:594}{24:380}$	172.97	.001
*, 2+4 ** 7+10	$\frac{274}{65}$: 594	166.82	.001
PAIRED UTTERANCE 13-5			
(LearnerRegarding) Instructors	Total Total category category 5 13	χ 2	p
* 1+3+5 ** 8+9+10	$\frac{324 : 1091}{82 : 182}$	16.85	.001
* 2+4 ** 6+7	$\frac{122 : 801}{52 : 224}$	7.64	.01
* 2+4 ** 8+9+10	$\frac{122 : 801}{82 : 182}$	80.20	.001
* 1+3+5 ** 6+7	$\frac{324 : 1091}{52 : 224}$	3.84	.05
PAIRED UTTERANCE 1-13			
(ScanningLearner) Instructors	Total Total category category 13 1	χε	р
* 1+2+3+4+5 ** 6+7+8+9+1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4.39	.05

<u>PAIRED UTTERANCE 5-13</u> (RegardingLearner) Instructors	Total Total category category 13 5	Χz	p
* 2+3+4+5 ** 6+7+8+9+10	$\frac{194}{73}$: 504	. 15	NS

PAIRED UTTERANCE 7-7	· · · · · · · · · · · · · · · · · · ·		
(StatingStating)	Total Total		
Instructors	category category	X۲	р
	7 7		
* 1+2+4+5	169 : 1096		
** 6+8	101 : 380	25.52	.001
* 1+2+4+5	169 : 1 096	187 50	001
** 7+9+10	380 : 880	107.50	
DATOCH LITTE DANCE 7-0			
(StatingClarifying)			
Thetrustore	Total Total	¥ 2	~
Instructor s	8 7	A ²	Ρ
+ 0101/1E	210 . 1212		
~ 2+3+4+3 ** 7+8	$\frac{210 : 1313}{146 : 622}$	15.71	.001
* 2131472	210 . 1313		
** 6+9+10	$\frac{210}{201}$: 638	62.13	.001
PAIRED UTTERANCE 8-7			
(ClarifyingStating)	Total Total		
Instructors	category category	χ 2	p
	/ 8		
* 1+2+5	<u>56 : 327</u>	78 30	001
** 7+8+9	190 : 391	70.50	
PAIRED UTTERANCE 3-7			
(PreparingStating)	Total Total		
Instructors	category category	χ 2	р
	/ 3		
* 1+3+4	146 : 213	11 10	
** 6+9+10	88 : 170	11.19	.001
* 2+5	60 : 146	3.59	NS
** 6+9+10	88 : 170		
CLARIFYING CLARIFYING			
Thetructors	Total Total	v •	
INSCLUCIOFS	8 8	X	р
* 1+2+3+4+5	$\frac{41}{50}$: 534	44.41	.001

TABLE 32 (cont.)

<u>Note</u>: i) * Those 'most effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.

ii) ** Those 'least effective' instructors with no significant differences in the use of the category under examination. Each instructor's proportional use of the category to his/her total utterances are added to make up proportions shown in column 2.

TABLE 33

COMPARISON OF THE PROBABILITY OF ONE CATEGORY FOLLOWED BY ANOTHER

% Probability

SELECTED			PAIRED UT	TERANCES	EXAMINED	MOST EFFECTIVE	LEAST EFFECTIVE
1	-	13	Scanning	followed	by Learne	rs 66%	60%
3	-	7	Preparing	11	- Statin	g 68%	51%
7	-	13	Stating	99	Learne	rs 25%	98
13	-	5	Learners	11	Regard	ing 24%	33%
8	-	7	Clarifyin	a	Statin	q 18%	498
7	-	8	Stating	"	Clarif	ying 16%	28%
7	-	7	Stating	11	Statin	q 15%	43%
8	-	8	Clarifyin	g "	Clarif	ying 8%	28%

Note: The probability of one category following another in the selected paired utterance used by the 'most effective' and 'least effective' subgroups were significantly different at the .05 level.

Differences or Similarities in the Use of Sequences of Three Utterances by the 'Most Effective' and 'Least Effective' Groups

An examination of Tables 13 and 27 reveals that for the ten most frequently used sequences of three utterances by the 'most effective' group, there was always interaction between the instructor and his learners. Over 80% of these sequences contained either the instructor scanning for misunderstandings (category 1) or giving learners positive praise or acknowledgement (category 5).

In contrast, in the ten most frequently used sequences by the 'least effective' group, only two sequences show any interaction between instructors and learners, or any use of Scanning (category 1) or Regarding (category 5). Findings in Response to Research Question 3.0

Research Question 3 asked: Are there patterns of verbal communication which are used more consistently by the group of 'most effective' instructors than by the group of 'least effective' instructors? Conversely, are there patterns of verbal communication which are used more consistently by the group of 'least effective' instructors than those used by the group of 'most effective' instructors?

Patterns of Verbal Interaction Between Learners and their Instructors

The most distinctive differences emerging from the the comparison of the 'most effective' and 'least effective' instructors in their management of intent were the patterns of verbal interaction between learners (category 13) and their instructors. During the first hour of lessons, learners communicated twice as much with the 'most effective' instructors than with the 'least effective' instructors. This pattern remained constant throughout the lesson for the 'most effective' instructors but this was not the case with most of the 'least effective' instructors.

A characteristic pattern occurred in the use of paired utterances that included interaction between learners and their instructors. In all cases the 'most effective' instructors used these interactive paired utterances from twice to five times as much as the 'least effective' instructors. Except for the paired utterance 5-13

(instructor Regarding followed by Learner response), the use of these interactive patterns of paired utterances by the 'most effective' instructors remained constant throughout the lesson. On the other hand, and except for the use of the 5-13 category, the 'least effective' group used these interactive paired categories with less consistency throughout the lesson.

There was no clear pattern in the probability of an instructor's utterance following a learners' response, or vice versa. There were similarities in the use of the paired utterances of 5-13 (instructor Regarding followed by a Learner response) and 13-7 (Learner utterance followed by instructor Explaining). There was a 9% greater probability of instructor Regarding (category 5) following a Learner's utterance (category 13) in the 'least effective' group than in the 'most effective' group. On the other hand there was a significantly greater probability that learners would respond to questions or explanations made by the 'most effective' instructors than those in the 'least effective' group.

A dominant pattern of verbal interaction between learners and their instructor occurred in the sequences of three utterances most frequently used by the 'most effective' instructors. In all cases, the ten most frequently used sequences of three utterances included some interaction between the instructor and his learners. These patterns of interactive sequences of three utterances used

by the 'most effective' instructors were typified by scanning for misunderstandings (category 1) and the giving of positive praise or acknowledgement to learners (category 5). Only two interactive patterns 13-5-13 (Learner utterance followed by instructor Regarding followed by Learner utterance) and 7-1-13 (instructor Explaining followed by Scanning followed by a Learner response) were used with any frequency by the 'least effective' instructors.

Patterns in Assessing

The greatest difference between the 'most effective' and 'least effective' instructors' use of categories was in their pattern of assessing if they had been misunderstood by their learners. The 'most effective' group used the categories of Scanning and Requesting (categories 1 and 2) five times more often than the 'least effective' instructors. In both cases, this pattern of assessing intent was constant throughout the lesson in both groups.

The pattern of a learner responding to an instructor's question (paired category 1-13) occurred twice as often with 'most effective' instructors than with the 'least effective' group. In fact, there was a probability that learners would respond to assessing of intent 66% of the time, which was significantly different to that of the 'least effective' group.

The sequence of three utterances, 7-1-13 (Stating followed by Scanning followed by Learner response) was used

frequently by both groups. However, the patterns of 13-1-13 (Learner followed by instructor Scanning followed by Learner response) and 1-13-5 (Scanning followed by Learner response followed by Regarding) were utilized more frequently by 'most effective' instructors than the 'least effective' group.

Patterns of Explaining

Three major verbal patterns emerged in the way the 'most effective' and 'least effective' instructors explained their intent to their learners. First, the 'least effective' instructors used the Preparing category before Explaining (3-7) consistently throughout the lesson and twice as much as the 'most effective' group.

Second, the 'most effective' instructors utilized the category of Suggesting (category 6) as an alternate form of explanation a little less than twice as often as the 'least effective' group.

Third, there was no clear pattern in either group's proportional use of Stating (category 7) over time, although the 'least effective' instructors Clarified (category 8) their communication twice as much as the 'most effective' group.

However, the use of explanation in the form of Stating (category 7) combined with Clarifying (category 8) in paired utterances and sequences of three utterances was the dominant pattern of verbal communication used by the 'least effective' instructors. The four most frequently used paired utterances by the 'least effective' instructors were made up of various combinations of Stating (category 7) and Clarifying (category 8) and were used from twice to nine times as much as the 'most effective' group. The use of these combinations were so frequent that one could predict from the 'least effective' group's pattern of explanation that there is a 49% probability that Clarifying (category 8) would be followed by Stating (category 7), a 43% probability that Stating (category 7) would be followed by Stating (category 7) and a 28% probability that Stating (category 7) would be followed by Clarifying (category 8). This is in contrast to only a 9% probability that Stating (category 7) would be followed by a Learner response (category 13).

With sequences of three utterances, nine out of the ten most frequently occurring sequences used by the 'least effective' instructors contained a Stating or Clarifying category. Seventy percent of these sequences of three utterances were made up solely of combinations of Stating and/or Clarifying categories.

Patterns of Verbal Reinforcement

A distinct pattern of positive reinforcement of learners' utterances was used by all instructors. However, the 'most effective' instructors consistently used throughout their lessons the Regarding category (category 5), or a combination of Regarding with other categories, three to four times as often as the 'least effective' instructors.

The 'most effective' instructors reinforced their learners' responses by acknowledgement or praise two to three times as much as the 'least effective' group. The 'most effective' group used this paired category (13-5) consistently throughout their lessons while there were significant differences in its consistent use by the 'least effective' group. While the 'most effective' instructors used this pattern of reinforcement most frequently, there was a greater probability of the use of Regarding (category 5) following a Learner's utterance (category 13) when a learner eventually did respond to a 'least effective' instructor. It should be noted that the learners in the 'most effective' group talked with their instructors twice as much as did the learners in the 'least effective' groups.

This pattern of positive reinforcement occurred in forty percent of the sequences of three utterances used by the 'most effective' instructors while it occurred only once in the 'least effective' sequences.

Patterns of Sharing

There were no distinct patterns in the use of the Sharing category (category 4) by either the 'most effective' or 'least effective' instructors. One 'most effective' subgroup of instructors used the sharing category three times as much as the 'least effective' instructors, while another subgroup of 'least effective' instructors used the Sharing category six times as much as a 'most effective'

subgroup. However, the use of the Sharing category (category 4) by the 'most effective' group did not vary significantly throughout the lesson, unlike the significant variations found in the 'least effective' group.

While the 'most effective' instructors used the combination category of Sharing (category 4 combined with any other category) almost twice as much as the 'least effective' instructors, neither group used this combination category with consistency throughout the first hour of the lesson.

Patterns of Repairing the Relationship

Although low frequencies in the use of the categories of Excusing, Unintentional (category 9); Excusing, Legitimate (category 10); Apology (category 11) and Penance (category 12) prevented meaningful statistical comparison, the 'least effective' group tended to use these "repairing" behaviors far more than the 'most effective' instructors. This trend was most apparent in the use of the Excusing, Legitimate category (category 10). The exception was in the use of the category of Penance (category 12) which three 'most effective' instructors utilized, while no instructor in the 'least effective' group used this category.

SUMMARY

In Chapter 5 the findings of the field test were reported. The verbal communication used by the 'most effective' and 'least effective' instructors was analyzed and compared. The following summary highlights the major similarities and differences found during the field test in the use of the categories, paired utterances and sequences of three utterances:

1. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to verbally interact more frequently with their learners throughout the lesson than those instructors who were 'least effective' managers of intent.

2. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to interact more frequently with their learners throughout the lesson by the use of: 1) Scanning (questioning to assess if learners have misunderstood or misinterpreted their instructor's intent), and 2) Regarding (reinforcement of learner responses through the use of positive praise or acknowledgement of the learners' contributions or efforts).

3. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tended to indirectly explain their

intent in terms of making a suggestion rather than always using a direct statement or giving an order to the learners.

4. Instructors who were perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship were the only instructors to follow up an apology for an error or misunderstanding with an offer to do something concrete to repair the relationship.

5. Instructors who were perceived as the least helpful or least well-intentioned when establishing the instructor/learner relationship tended to make more excuses for their action in terms of having no alternative course of action, or that their action was legitimate in their ascribed role of instructor than the 'most effective' managers of intent.

6. Instructors who were perceived as the least helpful or least well-intentioned when establishing the instructor/learner relationship tended more frequently to prepare their learners that an upcoming explanation was not meant to be seen as malicious or arbitary than those instructors 'most effective' in managing their intent.

7. Similarities existed between the 'most effective' and 'least effective' instructors in that: 1) the sequences of the most frequently paired utterances examined were not random and the coded utterances in a sequence could be maximally predicted by knowing the immediately preceding coded utterance; 2) the proportional use of categories and

sequences of utterances remained stationary or constant throughout the recorded session; and 3) the subgroups compared were made up of two to five instructors who shared a homegeneity in their use of a category, paired utterance or sequence of three utterances.

In the next and final chapter, a summary of all phases of the study are presented and conclusions drawn from the findings of the field test. From these conclusions, implications and recommendations are made for further research in the area of the management of intent in the instructor/learner relationship.

Chapter 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to develop and field test a technique for classifying and measuring the verbal communication used by adult education instructors for managing their learners' perceptions of instructor intent when establishing an instructor/learner relationship.

This section presents a summary of the major findings of the field test and the conclusions that were drawn from the research are then discussed. Implications will be drawn from the conclusions and recommendations made regarding further research in the area of the verbal management of intent.

SUMMARY

In conducting this study, nine major distinctions were found between those instructors rated as 'most effective' and those 'least effective' in their verbal communication of intent when attempting to establish an adequate instructor/learner relationship.

For those instructors who were most successful in establishing initial rapport with their learners, their verbal communication was characterised by: 1) a high frequency of verbal interaction between learners and their

instructor throughout the lesson; 2) the constant use of questioning to assess if the learners had misunderstood or misinterpreted their instructor's intent; 3) the constant reinforcement of all learner responses through the use of positive praise, reference to the learners by name, or the verbal acknowledgement of a learner's contribution or efforts; 4) the instructor explaining intent in terms of making a suggestion rather than using a direct statement of intent; and 5) a tendency not only to apologize for an error or misunderstanding but also to make an offer to do something concrete to repair a relationship.

For those instructors 'least effective' in establishing rapport, their verbal communication was characterised by: 6) a high frequency of explanations of intent by the contiguous use of various combinations of statements or clarifications; 7) the preparation of learners that an upcoming explanation was not meant to be malicious or arbitary in any way; 8) a tendency to make excuses in terms of having no alternative course of action, or that some action was legitimate in the role of instructor; and 9) repairing relationships frequently through making apologies or excuses, but never offering to do something concrete to repair a misunderstanding.

There were a number of similarities in other patterns of verbal communication used by both the 'most effective' and 'least effective' instructors. First, in most instances the sequences of paired utterances examined

were not random but formed specific patterns such that a knowledge of a preceding event increased the predictability of what was likely to follow. While the probability of one category following another in a selected paired utterance appeared closely related to the proportional use of that paired utterance, there were two notable exceptions. It was predictable that when either of the 'most effective' and 'least effective' instructors questioned to check that they had been understood, there would be at least a 60 percent probability that this verbal scanning (category 1) would be followed by a learner's response (category 13). When either group of instructors used acknowledgement or praise, there was around a 40 perecent probability that the succeeding utterance would have been a learner response

Second, over half of all instructors, each teaching in different subject areas, showed that their use of the various categories or sequences of verbal communication remained constant throughout the first hour of the initial lesson of the term.

CONCLUSIONS

The following conclusions have been drawn from the findings of the study:

1. A naive group of persons can be trained to learn the classification scheme and apply the coding technique with reliability when unitizing and categorizing transcripts of verbal communication used by an instructor.

While the coding technique is not difficult to conceptualize, it is difficult to apply with accuracy and consistency without thorough training in its use. Coder errors were often made in distinguishing between Stating (category 7) and Clarifying (category 8) when unitizing and categorizing long sequences of utterances that were largely made up by these categories. It was also difficult at times to distinguish whether the use of the word "we" was meant in the context of sharing power in the relationship and coded as category 4, <u>e.g</u>. "we the people in this room", or if it referred to the accumulated knowledge of experts in a content area, <u>e.g</u>. "we the experts who know about such matters". This ambiguity in meaning was never satifactorily resolved.

2. The coding technique can be used for obtaining objective data but can only measure one dimension of communication. That is, the content of verbal messages used to manage intent when establishing an instructor/learner relationship.

It is important to understand that application of this coding technique is limited. The quality of a relationship in a verbal message, the control implied in a verbal message, the impact of the intensity of a message, or the congruence between verbal and nonverbal messages cannot be measured by this technique.

When coding, the influence of paralinguistic cues contained in an utterance were avoided through the use of

written transcripts to assist the coders in focusing only on the content of the message. However, this resulted in a confusion as to whether an utterance was made in a positive, neutral or negative way. This lack of knowledge of the relationship, control or intensity implied in a message prevented a more accurate interpretation of the intent of an instructor's verbal communication. For example, the present coding system does not distinguish whether the 'most effective' instructors verbally scan for misunderstandings in an encouraging and positive tone, or whether the 'least effective' instructors verbally scan for misunderstandings using indifferent or negative tones. The use of a learner's name could be a genuine acknowledgement and regard of that learner's identity as an individual, but a learner's name said in a sarcastic tone could well be the antithesis of positive acknowledgement and regard.

3. The categories of the classification scheme represent communication behaviors that occur in an adult education classroom situation.

Generally, this was the case except for five categories that occured infrequently in some instructional situations. As would be expected in the first meeting of a class, it was not necessary to repair the new instructor/ learner relationship through the excessive use of Excusing unintentional (category 9), Excusing - legitimate (category 10) Apology (category 11) or Penance (category 12). Making use of Requests (category 2) instead of using a more direct

form of communication was used so infrequently during the field test that this category was collapsed and incorporated into the Scanning category (category 1). However, the Requesting category (category 2) was used a great deal by the 'most effective' trained instructors in the pilot tests which were conducted in more formal institutional settings and with much larger classes.

4. The findings of the study strongly suggest that adult education instructors who wish to been seen as helpful and well-intentioned when establishing the initial instructor/learner relationship in their first class meeting should ensure maximum verbal interaction with their learners.

It appears that the frequency of interaction between instructors and learners is related in some way to the learner's positive perception of the initial instructor/ learner relationship. Conventional practice in adult education stresses the use of highly interactive 'ice breakers' in the first meeting to help establish a nonanxious learning environment and a relationship that will encourage further participation in learning. While no instructor observed during the field test used these 'icebreaker' activities, there was still a great deal of verbal interaction between the 'most effective' instructors and their learners. Conversely with the 'least effective' instructors, there was a lack of interaction with learners and a preoccupation with getting information across to the

class.

The level of interaction facilitated by instructors in the first meeting may well be an initial indicant to learners of the instructor's respect for the learners' ideas and experience and that in future classes the instructor will be genuinely willing to share the ascribed expert power of his role of instructor. While the facilitation of interaction appears an important factor in achieving the desired goal of being perceived as well-intentioned, the findings also suggest that to be effective, instructors should consciously manage their verbal communication and subsequent interaction using the following strategies:

Frequent Scanning to Check for Misunderstandings. Adult eduation instructors should frequently scan for misunderstandings or misinterpretations. Instructors who do this will be perceived by their learners as more wellintentioned than those instructors who less frequently use the Scanning category in their verbal communication.

When either a 'most effective' or 'least effective' instructor scanned for a feedback about possible misunderstandings there was approximately a sixty percent probability that a learner would respond. The crucial difference was that the 'most effective' instructors scanned for feedback about misunderstandings <u>five</u> times as often as the 'least effective' instructors, used the paired utterance 1-13 (Scanning followed by Learner response) <u>four</u> times as often as the 'least effective' instructors and the learners

responded to verbal scanning <u>twice</u> as often as the 'least effective' instructors.

Useful verbal indicants of the quality of the instructor/learner relationship appear to be the frequent use of the following sequences of three utterances: 13-1-13 (Learner, instructor Scanning, Learner) and 7-1-13 (instructor Stating, instructor Scanning, Learner); and to a lesser extent, the use of 1-13-5 (instructor Scanning, Learner, instructor Regarding) and 1-13-7 (instructor Scanning, Learner, instructor Stating).

Frequent Regarding of Learners' Efforts. Adult education instructors who verbally reinforce their learners' responses through the use of positive praise or simple acknowledgement of their learners' contributions will be perceived as more helpful and well-intentioned than those instructors who use this type of communication less frequently.

When either a 'most effective' or 'least effective' instructor used the Regarding category (category 5) there was approximately a forty percent probability that a learner would respond. The crucial difference was that the 'most effective' instructors used this type of regarding communication to positively reinforce or acknowledge learners' efforts more than <u>twice</u> as often as the 'least effective' instructors. They used the paired utterance 13-5 (Learner followed by instructor Regarding) <u>three</u> times as often as the 'least effective' instructors and the

probability that learners could expect some reinforcement or praise after an utterance was ten percent higher than that of the 'least effective' instructors.

More effective verbal managers of their intent should attempt to consistently adopt the use of the sequence 1-13-5 (instructor Scanning followed by Learner response followed by instructor Regarding). This verbal sequence appears to be a key indicant that distinguishes those most successful from those least successful in their verbal management of intent. In essence, and as supported by the findings, the 'most effective' managers of intent appear more concerned about frequently checking for possible misunderstandings, ensuring their learners had enough confidence to respond, and then showing the courtesy and concern to regard this response by some form of acknowledgement.

Use of Indirect Explanations of Intent. Adult education instructors should indirectly explain their intent in terms of making a suggestion rather than always using a direct statement or order to the learners.

The predominant feature of the 'least effective' instructor's verbal communication in this study was their propensity to use long sequences of direct explanations or clarifications, often from twice to nine times as often as the 'most effective' instructors. In contrast, the 'most effective' managers of intent made greater use of indirect verbal interaction through the use of asking more questions,

giving praise and acknowledgement, and suggesting rather than telling.

Similar results to these were found by Flanders (1969) in Minnesota and New Zealand using his classroom interaction analysis technique with school age students. Instructors who scored high on students liking the instructor, motivation, fair rewards and punishments, lack of anxiety and independence; all used indirect influence in their classroom management. Although these findings were related to school age students, they also are consistent with the concerns and anxieties of adult learners when they commence a new class.

5. The findings of the field test suggest that adult education instructors who wish to be seen as helpful and well-intentioned when establishing the initial instructor/learner relationship should attempt to repair any misunderstandings by offering a simple apology for a mistake and should avoid making excuses based on the the ascribed power given to them by their learners in their role as instructor.

While insufficient frequencies in the use of Excusing and Repairing categories (categories 9, 10, 11 and 12) prevented meaningful comparison for statistically significant differences, there were clear trends in their proportional use. Unlike the 'most effective' managers of their intent, the 'least effective' instructors never followed up an apology with any further action to diffuse

any potential hostility as a result of their error or behavior. This suggests a lack of empathy, a lack of experience or a possible preoccupation with pursuing some preconceived role of how an instructor should behave. This explanation gains plausibility when the data also suggest that the 'least effective' managers of intent usually made excuses for their behavior in terms of having no alternative course of action, or legitimizing their action by referrence to their ascribed power role of instructor.

Those instructors unsuccessful in establishing an initially adequate instructor/learner relationship fallaciously believed that an instructor has little need to be concerned about the feelings of his adult learners. This is in contrast to the instructors perceived as most helpful and well-intentioned who were the only ones to follow up an apology for a misunderstanding with an offer to do something concrete to repair the relationship.

6. Those adult education instructors who tend to be perceived as least helpful or least well-intentioned when establishing the instructor/learner relationship can be identified by the frequency with which they prepare their learners that an upcoming explanation is not meant to be seen as malicious or arbitary.

Unexpectedly the instructors perceived as 'least well-intentioned' tended to use the Preparing category (category 3) significantly more than the 'most effective' group. As the most predominant pattern of communication of
the 'least effective' instructors was a straightforward Stating and Clarifying of intent, it is plausible to think that they were also very direct in preparing their learners that an upcoming statement was not to be interpreted as malicious or arbitrary in nature. This reinforces a previous argument that more effective managers of intent in the instructor/learner relationship should rely on a more indirect, varied and interactive verbal communication that includes Scanning, Regarding and Suggesting, as well as the use of Stating and Clarifying to diffuse possible misunderstandings. This would minimise the necessity to use the Preparing category.

7. Similarities exist between the 'most effective' and 'least effective' instructors in that: 1) the subgroups that were used for statistical analysis and comparison were homogeneous in the sense that there were no significant differences in their use of the category or sequence of utterances under examination; 2) the sequences of the most frequently paired utterances examined were not random and the coded utterances in a sequence could be maximally predicted by knowing the immediately preceding coded utterance; 3) the proportional use of categories and sequences of utterances remained stationary or constant throughout the first hour of the lesson.

The direction of these findings provide a positive indication that the coded data collected and compared in this study met the criteria of order, stationarity and

162

homogeneity posited by Hawes and Foley, 1976 and Hewes 1977. This adds strength to the assumption that the data gathered by use of the coding technique is not so inconsistent or randomly arrayed that it can not be combined and used with confidence for matrix analysis.

8. From the methodology developed for the study, additional conclusions were drawn. First, the training of physically handicapped persons to perform transcribing and coding tasks utilizes a previously untapped source of effective assistance when patience, perserverence and intellectual skills are demanded.

Second, the use of microcomputers to assist in the tabulating and analysis of coded sequential data is a convenient and cost effective alternative to the use of larger institutionally based computers.

Lastly, in this developmental study, the encouragement of others to actively participate in its design and implementation allowed the research objectives to be met while at the same time providing a useful learning opportunity for all participants.

The nature of the methodology necessitated the identification and selection of a large number of support personnel to assist with data collection, transcribing and coding of data. Without access to a network of voluntary or low cost contract personnel, there are budgetary and logistical constraints to replicating a similar study. It was found that organisations and sheltered workshops for the physically disabled provided a pool of determined and competent support personnel whose services had been previously neglected for short term contract work of this nature.

The use of a microcomputer in this study was a useful tool for the level of analysis required. However, when working with the sequential data and matrix designs, limitations were experienced in developing adequate programs within the capacity and range of the microcomputer. In particular, even a double density 48k data memory did not have the capacity to satisfactorily analyse patterns of coded verbal behavior beyond sequences of three utterances.

Consistent with the ethical and philosophical assumptions of adult education, it was encouraged that participation in the study by learners, instructors, administrators and contracted personnel might also be a mutually beneficial and nonthreatening learning experience. Time invested in sharing a tangible form of reciprocity and feedback through face to face discussion, informal small group luncheons followed up by more formal inservice training sessions and written feedback maximized involvement and ensured access for future adult education researchers.

RECOMMENDATIONS

A review of the design of the study and the results of the field test indicate the need for further modification to the classification scheme, procedures for gaining access to participants, identification and selection of support personnel, and data analysis. As well, implications for further research need to be considered. In view of this, the following recommendations are made.

Recommendations for Modifications to Classification Scheme

 Subject to further testing, the category of 'Requesting' (category 2) might be collapsed back into 'Scanning' (category 1). It was rarely used in the field test and caused some coder confusion in distinguishing between the categories of 'Requesting' and 'Suggesting'.

2. More critical redefinition of the rules for coding the categories of 'Explaining' (category 7) and 'Clarifying' (category 8) are needed. Most coder errors occurred unitizing the long sequences of utterances that were largely made up by these categories.

3. To avoid confusion as to whether an utterance was made in a positive, neutral or negative way there is a need to include the added dimension of the relationship implied in the message to more realistically interpret an instructor's verbal management of intent. Future approaches should utilize both instructor and learner behaviors using the classification scheme of this study and then add a 'relationship' code to indicate the quality of the relationship inferred in the utterance. For example, the same sequence of three utterances 1-7-13 used by two different instructors might be more meaningful when distinguished as 1(+)-7(+)-13(+) for one instructor and 1(-)-7(+)-13(-) for the other.

Two available techniques for coding interaction from a relational perspective have been developed by Ellis (1976) and Donahue (1980). Each coding technique has established a high degree of reliability and validity in communication research studies.

Recommendations for Gaining Access

1. Because of initial difficulties experienced in obtaining access to classrooms, it is recommended that special attention be given to approaching administrators, principals and instructors. It should be emphasized that their participation will be a mutually beneficial and nonthreatening experience. In the Australian climate of staff cutbacks, insecurity of tenure and a tradition of obtaining little or no benefit or feedback from studies previously conducted in the classroom, there seemed a suspicion and mistrust of research. It appeared to be often equated with some form of job evaluation and was initially seen as a threat to one's instructional competence or integrity.

2. Particular attention and time should be invested in face to face contacts, the writing of simple, courteous and straightforward correspondence explaining the research purpose and building into the research design some tangible form of reciprocity and feedback to all participants.

166

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Recommendations for Identifying Suitable Support Personnel
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From the experience of this study, it is recommended that the resources of organizations or sheltered workshops for physically disabled persons be utilized in similar studies as they provide a pool of determined and competent support personnel.

Recommendations for Data Analysis

The existing computer programs used for data analysis of this study should be modified to include: 1) a conversion of frequency data to proportions; 2) display of selected computations into histograms; and 3) an additional program for computation of chi-square analyses and the partitioning of chi-square to allow identification of differences within and between groups of instructors.

Recommendations for Further Research

Differences observed between instructors 'most effective' and 'least effective' in their verbal management of intent suggest further inquiry is warranted. In terms of further research effort, it is suggested that the following recommendations be considered:

 That the results of the field test be further substantiated by replicating the study with samples of instructors drawn from different adult education settings.

2. That both instructor and learner communication be coded using the classification scheme developed for this study. It would be useful to add a relationship code to help indicate the quality of the relationship implied in an utterance.

3. That the coding technique be utilized to examine how instructors verbally manage their intent during conflicts that occur at different times throughout the duration of a course.

4. That the conceptual framework and classification scheme be used as a starting point for further inquiry into other aspects of the communication of intent in adult education environments. For example, the examination of: 1) the nonverbal management of intent; 2) the congruence between an instructor's verbal and nonverbal management of intent; 3) the ability of instructors to recognize culturally different messages of intent or to simultaneously synthesize multiple messages of intent; 4) the learners' perceptions and management of intent; 5) the learners' perceptions of the intent of the verbal communication used on the screens of computer based learning systems or in written materials.

5. Further research is also suggested in response to the following hypotheses that have been generated by the field test:

a) Instructors who are perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship facilitate more verbal interaction throughout the lesson than those instructors who are 'least effective' managers of intent.

168

b) Instructors who are perceived to be more helpful and well-intentioned when establishing the instructor/ learner relationship verbally interact more frequently with their learners than those instructors who are 'least effective' managers of intent.

c) The verbal sequences of three utterances made up of any combination with either Scanning (category 1) or Regarding (category 5) are used more frequently by 'most effective' managers of intent than those who are 'least effective'. This verbal pattern is a characteristic indicant of instructors 'most effective' in their management of intent.

d) It is predictable that learners will respond more frequently to the assessing of intent by instructors who are perceived as more helpful and well-intentioned than those seen as 'least effective'.

e) Instructors who are perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship interact more frequently with their learners throughout the lesson by the use of: 1) Scanning (questioning to assess if learners have misunderstood or misinterpreted their instructor's intent), and 2) Regarding (reinforcement of learner responses through the use of positive praise or acknowledgement of the learners' contributions or efforts).

f) Instructors who are perceived as most helpful and well-intentioned when establishing the instructor/

169

learner relationship make more suggestions to their learners than those 'least effective' instructors who favour direct statements of intent.

g) Instructors who are perceived as most helpful and well-intentioned when establishing the instructor/ learner relationship tend to follow up an apology with an offer to do something concrete to repair the relationship far more than those perceived as 'least effective' in their management of intent.

h) Instructors who are perceived as the least helpful or well-intentioned when establishing the instructor/learner relationship tend to make more excuses for their action in terms of having no alternative course of action, or that their action was legitimate in their ascribed role of instructor than the 'most effective' managers of intent.

i) Instructors who are perceived as the 'least helpful or well-intentioned' when establishing the instructor/learner realationship tend more frequently to prepare their learners that an upcoming explanation is not meant to be seen as malicious or arbitary in any way than those instructors 'most effective' in managing their intent.

In its present stage of development, the conceptual framework, classification scheme and coding technique provide a means for empirical description to identify characteristic patterns of verbal communication used to effectively manage intent in the instructor/learner relationship. It provides a conceptual screen through which the verbal communication used to manage intent may be viewed. APPENDIX A

APPENDIX A

COMMUNICATION OF INTENT IN THE CLASSROOM

<u>The Environment</u>. This is the setting in which the system operates. The environment for this study was the adult education evening college classrooms of a metropolitan region in Australia.

The Boundaries of the System. The boundary of the system, the focus of this study, was the verbal communication that takes place between instructors and learners.

<u>The Suprasystem</u>. The suprasystem is conceptualized as comprising all of the complex and interrelated systems, their subsystems and components that are concerned with the communication of intent in adult education classrooms.

Together with the environment, the suprasystem can be thought of as an ecosystem. Each of the systems are dependent upon the other. If there is a change in one, there will be a compensatory change in another to restore the equilibrium of the larger ecosystem. If one system completely breaks down, it may result in the collapse of the ecology of the suprasystem. For example, if an instructor fails to verbally acknowledge the expertise of a trainee who clearly has superior knowledge in some subject under discussion, an irreparable conflict may occur or a learner may drop out of the course.

The Suprasystem of all communication of intent in the classroom is made up of four smaller systems linked in a circular interpersonal process as shown in Figure 1. Within the Suprasystem, two of the systems deal with mental or psychological states of the instructor or learners, while the other two systems deal with the behavioral responses of the instructor or learners. In order to illustrate the link between these psychological states and behavioral responses when communicating intent, it was necessary to further develop the model shown in Figure 2.

The System. The suprasystem for this study can be viewed as consisting of four separate yet interrelated systems. As shown in Figure 1, System 2, the instructor's management of intent, was the system under study.

<u>The Subsystem</u>. System 2 consists of two subsystems. Subsystem A is the nonverbal communication subsystem and Subsystem B is the verbal communication subsystem. This study was limited to Subsystem B, the verbal communication used by an instructor to manage intent.

<u>The Components</u>. Subsystem B is made up of three components. These components are the content of the verbal message (what is said), the quality of the relationship contained in the message (how one feels about what is said), and the control implied by the message (what one should do about what and how something is said). Only one component, the content of the verbal message in an instructor's communication was examined and measured in this study.

Level of Analysis. The component 'content of message' of Subsystem B in System 2 was the focus of analysis. A classification system of thirteen categories and twelve combination categories was built for conducting the analysis.

Unit of Analysis. A verbal utterance was the unit of analysis. Depending upon the content of the message, an utterance was either one word, a phrase or a complete sentence. THE ENVIRONMENT: Adult education evening college classrooms of a metropolitan region in Australia

BOUNDARIES TO THE SYSTEM: Communication in adult education classrooms SUPRASYSTEM: All verbal and nonverbal communication of intent



LEVEL OF ANALYSIS: System 2 and a component of Subsystem B ([____]) UNIT OF ANALYSIS: A verbal utterance of component "Content of Message"

FIGURE 1

COMMUNICATION OF INTENT: AN OPEN SYSTEMS MODEL



* The Process of Interpreting Messages of Instructor Intent

Intentional or unintentional verbal and nonverbal messages are: 1) processed and filtered through the learners' language system, norms, beliefs and world view; 2) matched for compatibility with learners' own psychological needs and learning interests; 3) continually checked for any incongruencies; 4) combined, synthesized and interpreted tentatively as intentional or unintentional in nature; and 5) finally matched against the instructor's assumed motives to judge whether he/she intends to help, ignore or dominate the learners.

FIGURE 2

COMMUNICATION OF INTENT IN THE CLASSROOM

The Link Between Forming Intentions and Communicating Intentions (Instructor)

To help understand the dynamics of the the link between an instructor's covert intent, the perception of his learners' intentions and the instructor's overt communication of intent, Figure 3 has been included.



FIGURE 3

THE LINK BETWEEN FORMING INTENTIONS AND OVERTLY EXPRESSING INTENTIONS (INSTRUCTOR)

Instructor's Mental State. An instructor's mental state is separated into: 1) perceptions of intent, and 2) covert intentions. The instructor acts simultaneously as observer to perceive messages of others' intent, and as actor to covertly plan the management of his own communication. The three categories describing the intent of learners is based on a nomenclature developed by Sarbaugh (1979, pp. 33 and 50).

Instructor's Behavioral Response. From a mental state of intent, there is a praxis from thought to action. The instructor makes a behavioral response to his mental state and overtly communicates his intent using verbal or nonverbal messages. The lines that connect the instructor's mental state and behavioral response on the model are drawn to indicate the simultaneous process of praxis. As the distinction between thought and action is problematic, a broken line links the instructor's mental state and behavioral response.

The Process of Interpreting Messages of Instructor Intent.

Figure 4 illustrates the link between an instructor's verbal and nonverbal messages, and the learners' perceived intent of these messages. The distinction made between intentional and unintentional messages is important (MacKay, 1972) since even the most caring or competent instructor may unconsciously incorporate easily misinterpreted habits or idiosyncratic expressions into his communication (Ekman and Friesen, 1969).



FIGURE 4

THE PROCESS OF INTERPRETING MESSAGES OF INSTRUCTOR INTENT

Messages Processed Through Learner's Values. The learner processes all messages through his own code system, norms, beliefs and world view. If the instructor says something that is not congruent with the learner's beliefs and experience, there will be a lack of shared meaning and a likelihood of a misunderstanding occurring. The concept of processing or filtering ideas through a set of criteria based on experience and values is adapted from Knowles (1970) and Sarbaugh (1979).

Messages Matched Against Needs and Interests. The message is then matched against the learner's own needs or interests and interpreted as intentional or unintentional.

<u>Congruency of Message is Checked</u>. Different types of verbal and nonverbal messages are sent simultaneously by the instructor. Agreement between verbal and nonverbal messages is critical for verifying the credibility of a message (Graves and Robinson, 1974). The learner continually checks the congruency of what is said, how it is said, and the instructor's consistency in carrying out his intentions. Messages Interpreted and Evaluated Against Motives. Having simultaneously 1) processed the instructor's message against their own values, 2) decided if their interests are compatible with those of the instructor, and 3) continually checked for incongruence between the verbal and nonverbal messages, the learners then evaluate these pieces of information against the instructor's assumed motives. Judgments are made regarding the instructor's disposition towards the learners. That is, does he intend to help, ignore or dominate the learners.

It is acknowledged that people differ in the degree to which they attribute intent (Maselli and Altrocchi, 1969). This interpretative process of the model highlights the close but distinct functional link between motives and intent.

The Link Between Forming Intentions and Communicating Intentions (Learners)

The process describing the learner's mental state and behavioral response as shown in Figure 5, is identical to the one previously discussed for the instructor. In short, the learners' perceptions of the instructor's intent are matched with the learners' own covert intentions. There is a praxis from thought to action and overt messages of intent are communicated to the instructor.



FIGURE 5

THE LINK BETWEEN FORMING INTENTIONS AND OVERTLY COMMUNICATING INTENTIONS (LEARNERS)

The Process of Interpreting Messages of Learner Intent

The final link from System 4 back to System 1 is an identical process to the one described from System 2 to System 3. That is, the instructor processes messages, selectively matches the data against his own needs, checks the congruency of the message as either intentional or unintentional and then evaluates this interpretation against the learners' assumed motives. This final link is illustrated in Figure 6.



FIGURE 6

THE PROCESS OF INTERPRETING MESSAGES OF LEARNER INTENT

The Completed Cycle

The circular process that links the four systems in the model of communication of intent in the classroom is complete. In summary, an understanding of the interrelationships between the systems for communicating intent assists in visualizing that the instructor's verbal management of intent is only one system in a complex and dynamic process of communicating intent in the classroom.

VERBAL COMMUNICATION OF INTENT IN THE CLASSROOM

At the systems level, there are two distinct subsystems: the verbal subsystem and the nonverbal subsystem. As this study focuses on the verbal communication of intent, Figure 7 further illustrates how: 1) the instructor and learners verbally communicate their intent, and 2) the psychological processes they use to infer intent.

Highlighted in this model is the instructor's need to perceive multiple verbal messages of intent from the learners while on the other hand, the learners need only to focus their attention on those verbal messages of intent sent by the instructor. That is, from the students' viewpoint, his relationship with the instructor is perceived as being on a one-to-one basis. However, from the instructor's viewpoint, he must process and interpret multiple messages of intent that may be sent simultaneously from a large number of learners.



* The Process of Interpreting Messages of Instructor Intent

Intentional or unintentional verbal and nonverbal messages are: 1) processed and filtered through the learners' language system, norms, beliefs and world view; 2) matched for compatibility with learners' own psychological needs and learning interests; 3) continually checked for any incongruencies; 4) combined, synthesized and interpreted tentatively as intentional or unintentional in nature; and 5) finally matched against the instructor's assumed motives to judge whether he/she intends to help, ignore or dominate the learners.

FIGURE 7

VERBAL COMMUNICATION OF INTENT IN THE CLASSROOM

179

The effectiveness of an instructor to accurately communicate intent is dependent upon his successful management of the three components of a verbal message. A model to show the relationships between these three components: the content of a message; the quality of a relationship in a message; and the control implied in a message; is illustrated in Figure 8.



FIGURE 8

RELATIONSHIP BETWEEN THE THREE COMPONENTS OF AN INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT The component 'Control Implied in Message', represents one dimension of a verbal message which an instructor can use to control the direction of interaction between himself and the learners. By managing this aspect of communication, the instructor can imply how learners might respond to his message. For example, an instructor who is constantly pressed for time might often demand an abrupt end to a group discussion. To accomplish this, he consistently terminates the group's activities by a phrase such as 'Perhaps we should leave it there'. Over time, this phrase is not seen as a suggestion but rather it becomes a recognized cue for learners to quickly cease their discussion.

The component 'Quality of Relationship in the Message', is represented in Figure 8 by the categories conceptualized by Ellis et al. (1981) to analyze the relationship dimension of human communication. This dimension of a verbal message reveals the nuances of symmetrical or complementary interaction between an instructor and the learners. For example, the category 'Dominance' means an attempt to restrict severely the behavioral options of the other. 'Structure' is an attempt to restrict the behavioral options of the other but leaves a variety of options still open. 'Equivalence' is an attempt at mutual interactions which do not seek to control the flow of interaction. 'Deference' is the willingness to relinquish some behavioral options to another while retaining some choice or preference. 'Submissiveness' is the willingness to relinquish behavioral options to another while retaining little or no choice (Ellis et al., 1981). APPENDIX B

APPENDIX B

INITIAL CLASSIFICATION SCHEME

FIRST MODIFICATION (Before Pilot Study) INITIAL SCHEMA FOR INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT

CL	assification	Code	Category Verbal Behavior Description	
	ASSESSING	s	<u>SCANNING</u> : The active verbal solicitation of feedback about the learner's mental state concerning their reaction to the instructor's behavior. (It does <u>not</u> include the nonverbal solicitation of student feedback.)	
ACTIVE		P	<u>PREPARING</u> : The verbal behaviors directed towards convincing the learner that upcoming communication is not based on malicious or arbitrary motives. This occurs when the instructor anticipates that his future behavior may frustrate or upset the learner and in order to allow it to be seen in a more positive way, he provides advanced groundwork as a gesture of goodwill. It may include statements of regret or situational constraints.	
PR0/	SAPLALNING	St	STATING: The initial direct verbal explanation of the instructor's intent. This may include explicit statements of aducational purposes, goals, objectives, outcomes or strategies.	
		С	<u>CLARIFYING</u> : The verbal restatement or clarification of the instructor's original message that has been misunderstood or misinterpreted. It occurs when the instructor perceives a communication breakdown or failure.	
		U	UNINTENTIONAL: Verbal behaviors disclaiming knowledge of a previous behavior or event and excusing it as occuring accidentally or because of a misunderstanding or misinterpretation. This occurs only <u>after</u> an obvious frustration or misunderstanding for the learner. The purpose is to convince the learner that the behavior did not have a malicious or arbitrary motive.	
	EXCUSING	N	NO ALTERNATIVE: The verbal behaviors claiming that the instructor had no alternative for his actions but was required to follow an established rule or norm. This occurs only <u>after</u> an obvious frustration or misunderstanding for the learner. The purpose is to rule out malicious motive.	
REACTIVE			L	LEGITIMATE: The verbal behaviors defending the instructor's actions as being deliberate <u>but</u> legitimate in his role as instructor. This occurs only <u>after</u> an obvious frustration or misunderstanding for the learner. The purpose is to convince the learner that the behavior was "fair" or just.
	REPATRING	A .	APOLOGY: The verbal behaviors directly admitting personal blame or error and/or asking for forgiveness. This occurs after the instructor perceives he has hurt, offended or visibly upset the learner. It is a psychological sacrifice to demonstrate the instructor's concern for the learner.	
		Pe	PENANCE: The verbal behaviors offering a substantive form of instructor sacrifice. This occurs <u>after</u> the instructor perceives he has hurt, offended or visibly upset the learner but sees an apology as not enough to repair the relationship	
		x	All other verbal behaviors of the instructor that are not directly related to his management of intent.	
		0	All other behaviors not included in the first ten categories This may include silence or learner verbal behaviors.	

FIRST MODIFICATION (Before Pilot Study)

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INITIAL SAMPLE CUES FOR VERBAL BEHAVIOR CATECORIES

·	ASSESSING	S	SCANNING: "Is anything wrong?" "Well?" "What's your reaction to?" "Hammar?"
ACTIVE		P	PEPARING: "I regret to have to do this" "Unfortunately, circumstances/time" "This is no personal" "You've made a good point but" "I think we have run out of time, so" "I want you to be aware of" "Be prepared for the" "What you have said is one alternative but"
PRO	BAPLAINIM	3t	STATING: "The purpose of this is to" "The three objectives I wish to cover are" "The course is designed to" "By the end of the lecture"
		с	<u>CLARIFYING</u> : "What I meant to say" "I think you misunderstood" "Perhaps I should go over that again" "To rephrase that"
		υ	UNINTENTIONAL: "It was an accident" - "Yow! I didn't realize" "I had no idea" "I didn't know I" "It wasn't meant that way."
	EXCUSING	N	<u>NO ALTERNATIVE</u> : "I had no choice" "The University specifically" "It was unavoidable." "I am forced to"
CTIVE		L	LEGITIMATE: "It's my responsibility" "As facilitator, I must" "The course outline clearly states" "Well you see, the department requires" "But you must remember that the class agreed"
REA	REPAIRING	٨	<u>APOLOGY</u> : "I made a mistake/error." "It was all my fault." "Please forgive me." "I'm sorry." "I apologise."
		Pe	PENANCE: "Let me make it up to you by" "Please accept this as" "What can I do to" "Perhaps I could repair the damage by"

		SCHEMA FOR INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT
Classification	Code	Description of Verbal Behavior
	1	<u>SCANNING</u> : Asks for feedback about the learners' mental state concerning their reaction/understanding of the instructor's actions or behaviors.
ASSESSING	2	<u>REQUESTING</u> :Asks for information, for action, or for understanding in the form of a request. Using this conditional form of questioning the learner is given the freedom to disagree or reject the invitation or request.
PREPARING	3	<u>PREPARING</u> : Attempts to convince the learners that upcoming communication is not based on malicious or arbitrary motives. This occurs when the instructo: anticipates that some future behavior may be easily misunderstood or misinterpreted by the learners. To be seen in a more positive way, & avoid upsetting the learners, he provides advanced ground work as a gesture of goodwill. This may include statements of regret, tension release in the form of jokes, humor, laughter, anecdotes, poems or time/sequence indicants.
EDUALISTING	4	SHARING: Indicates the relationship between the instructor & learner is symmetrical (interaction is based on equality - neither one up or one down). The power of the instructor is shared by the use of "we", "us", and "our", as well as self disclosure or opining.
	5	<u>REGARDING</u> : Gives positive praise or extends the courtesies & politenesses normally accepted in a society. This may include a simple "please" or "thank you". It also includes the instructor's regard for learner responses by acknowledgement, agreement, acceptance, concurrence -without rejection.
	6	SUGGESTING: Gives direction in the form of a suggestion/opinion. This form of directing implies autonomy of the learners & freedom for alternatives.
EXPLAINING	7	STATING: Explanations/statements of the instructor's purposes, goals, objectives, strategies, outcomes, reasons, etc
	8	CLARIFYING:Restating, repeating or clarifying the instructor's original explan- ation /message that may be misunderstood/misinterpreted. It occurs when the instructors perceives a communication failure or breakdown.
	9	EXCUSING(UNINTENTIONAL): Disclaims knowledge of a previous event or behavior à makes the excuse that it occurred accidentally, through a misinterpretation, or unawareness. This occurs <u>after</u> an obvious misunderstanding /frustration by the learner. The purpose of the excuse is to convince the learner/s that the behavior was not meant to be malicious or arbitrary.
20020	10	EXCUSING(<u>LEGITIMATE</u>): Defends actions as being deliberate but legitimate in the role of "instructor". Includes excuses that there was no alternative but to follow established norms/rules. The purpose of the excuse is to rule out malicious/arbitrary motive & show the action was "just" & "fair."
	11	REPAIRING (APOLOGY): Directly admitting personal blame/error & /or asking for forgiveness. This occurs after a misunderstanding. It is a psychological
REPAIRING	12	sacrifice to lemonstrate the instructor's care & concern for learners. REPAIRING (PENANCE): Directly offering a substantive form of sacrifice. This occurs after the instructor perceives he has burt, offended or upset a learner & realizes an apology is not enough to remain the relationship.
	13	All other instructor verbal behaviors not related to intent, does not fit
OTHER	14	any of the above classifications, or is unclear or confusing All other verbal behaviors not in the above classifications - including
		Learners Jeneviors, Jeriods of Silence, interruptions by Sther Dersons. etc

SCHEMA FOR INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT

SCHEMA FOR INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT

Cada	
1	Is that clear? Is anything wrong? Do you understand? What's your opinion/point of view? Well? Homen? What's your reaction to?
2	Would/could you explain/clarify that for me? Would/could you move to the front? Would/could you tell me if Could we have silence? Could/would you indicate on the paper your?
3	Unfortunately time has run out so circumstances require me to I want you to be aware of these important points firstly, What you said was one alternative but Let me share with you something that happened Before we go on, let's first Next week Goodheavens, it's pouring buckets outside (do you think we should end up a little early ?)
4	"We" "Us" "Our" - when used to include the instructor as as part of the class, not as a member of the faculty or some organization/institution. "Self Disclosure"- When I went to school I think that \$ "Opining" My wife always In my opinion
5	Thank you Please Good morning I trust you you're feeling better. That was kind of you. Good. Un ha. Momm. Yes. Fine. O.K. Go on. That's clear. Could be. Maybe. Sure.
6	Perhaps you might/could/would move down to the front of the class. If you are all ready we could start now. Our trip could include
7	The purpose of this course is to I won't be here next week. By the end of the lecture I wish to cover This means The reason this is included is to Mr. Jones will give
8	What I meant to say Perhaps I'll go over that again Let me repeat that Tomorrow, that is, on Wednesday To rephrase that In other wordsor what is called sometimes known as It can also be understood by
9	It was an accident Wow! I had no idea I wasn't aware I had no knowledge I didn't know that I was totally unaware Really, it wasn't meant that way.
10	I have no choice but to The University requires It was unavoidable as I am forced by the rules to It's my responsibility to insist As instructor, I must Well you see, the department requires Remember the class agreed
11	I was wrong. I made a mistake/error. Yes, it was my fault. Sorry. I'm sorry. I apologize. Please accept my apology.
12	Let me make that up to you by Please accept this as a What can I do to Perhaps I could repair the mistake by
13	
. 14	

APPENDIX C

APPENDIX C

RECOGNITION RULES FOR UNITIZING AND CATEGORIZING TRANSCRIPTS

1. RULES FOR UNITIZING

1.1 The unit of analysis is a verbal utterance which is coded according to the definitions of the thirteen categories or twenty-two combination categories as defined by the classification scheme in this study.

1.2 An utterance by an instructor or learner is a continuous flow of verbal communication and, depending upon the content of the message, may be one word, a phrase or a complete sentence.

1.3 An utterance always finishes at the end of a sentence or when another person interrupts.

1.4 The start and finish of an utterance is indicated by a vertical slash. For example: '/"Use that cup,/ the one with the silver handle."/'

1.5 A sentence may be divided into a number of utterances if unrelated ideas are linked by a conjunction or a comma that indicates a definite pause in the flow of an instructor's communication. For instance, in the following example an instructor makes two statements (category 7/category 7) that are unrelated in content but are linked by a conjunction as well as separated by a comma to indicate a definite pause in the flow of communication: '/"On the paper write down your native language and,/ on a separate piece of paper write down the countries you have visited."/'

1.6 A sentence which lists a number of related qualities, functions or objects is unitized as only one utterance. For example: '/"His pocket contained two pins, four coins, a knife, a piece of string. a handkerchief, a half eaten candy bar and a spark plug."/'

1.7 The words or phrases such as 'alright', 'y'know', 'well now' and other common and meaningless idiosyncratic idioms used in conversational Australian English to begin or end a phrase or sentence are not identified as separate utterances. They are unitized within the utterance they start or finish.

2. RULES FOR CATEGORIZING

2.1 An utterance is coded as only one category or combination category.

2.2 The coding of the content of a message contained in an utterance is inferred from its relationship to the preceding or succeeding utterances.

2.3 Coders should not infer inflections or emphases to any utterances except where shown by conventional punctuation marks or a marginated note on the transcript.

2.4 A category is coded by writing the appropriate category code number directly above the utterance on the transcript.

2.5 All questions are coded as either 'Scanning' or 'Requesting' categories (categories 1 and 2).

2.6 The categories of 'Sharing' and 'Regarding' (categories 4 and 5) may occur as separate categories or concurrently with another category. Whenever any two categories occur concurrently, the

categories 4 or 5 are coded first, followed by the number of the other category. For example: 13 52

13 52 '/"(Learner talk)./ Could I have your attention please?/ Could I have 2 5

your attention?/ Thanks."/'

2.7 An instructor's laughter is always coded as a '45' combination category as it contains an element of 'Regarding' and 'Sharing' behaviors.

2.8 If the word 'yes' is included as part of a 'Suggesting', 'Explaining' or 'Clarifying' utterance, that utterance is coded as a combination category. For example:

5 13 5 '/"Yes./ (Learner talk)./ Yes you and I should get together."/'

2.9 Words such as 'alright', 'y'know, 'well now' and other common Australian idiosyncratic ways of beginning or ending an utterance are not coded as a combination category. They are categorized within the utterance they start or finish.

2.10 If the coder is unable to classify an utterance, the utterance should be tentatively marked with a marginated note. Later, the coder should refer to the audio tape of the instructor to help in coding this utterance. No other changes must be made to the coding of the transcript on the basis of the tape. APPENDIX D

APPENDIX D

ANDERSON AND ANDERSON (1962) INTERVIEW RATING SCALE

Interview Rating Scale

Form A

INSTRUCTIONS

It is essential that all ratings be made by you as honestly as possible.

Your task is to rate your counseling experience at the present time. Rate your experience in terms of "what is now," not "what ought to be."

Look at the following example which has been filled out to show you how to use the scale.

I The councelor is a nice nerror	Alway s	Occasional	casionally		
1. The counselor is a file person			X		

The person who marked this thinks that his counselor is occasionally a nice person. You are to answer all the questions by placing a check in the box which best expresses what you feel about your interviews at the present time. Use any one of the five boxes for rating each statement according to the extent it holds true in your own experience.

Here are some hints to help you:

- 1. Work rapidly. There is no time limit, but do not spend much time on any one item.
- 2. Mark all items according to your feelings today.

Now proceed to answer the questions on the following pages.

Remember:

1. Try to answer each question as honestly as you can right now.

2. This is not a test.

INTERVIEW RATING SCALE

Nam	IC	•		Da	te	••••
	Items	A	liway	s	Scale Occasionally	Never
1.	The counselor gives the impression of being intellec- tually aloof from the client. (1)		A	$\begin{bmatrix} 2\\ -2 \end{bmatrix}$	$\begin{array}{c} 0 \\ \Box \\ 3 \\ -1 \end{array}$	N 5 +3
2.	The counselor creates a feeling of "warmth" in the relationship.		A	-		
3.	The counselor has a condescending attitude.	+3	۸	+3	-3 $-3O$	-2 N
4.	The counselor insists on being always "right."	1 0	A	2 -3	$ \begin{array}{ccc} 3 & 4 \\ -1 & 0 \\ 0 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ 1 \end{array} $	5 +3 N
5.	The client feels secure in his relationship with the counselor.	1 -1	А	2 0		5 +3 N □
6.	The client has confidence in the counselor.	0	А	+3	$ \begin{array}{ccc} -3 & -3 \\ 0 \\ \hline 0 \\ 3 & 2 \end{array} $	0 N
7.	The counselor is uncertain of himself.	0	A	+3	$ \begin{array}{ccc} -3 & -2 \\ 0 \\ \hline 3 & 4 \end{array} $	0 N 5
8.	The counselor is artificial in his behavior.	-2	A	-3	$ \begin{array}{ccc} -1 & +2 \\ 0 \\ \hline 3 & 4 \end{array} $	+3 N D 5
9.•	The client feels like a misguided delinquent around the counselor.	0	A	-3	$ \begin{array}{ccc} -1 & +3 \\ 0 \\ \hline 3 & 4 \end{array} $	+3 N 5
10.•	The client feels the counselor will jump on him if he says the "wrong" thing.	0	A	0	$ \begin{array}{ccc} -2 & 0 \\ 0 \\ \hline 3 & 4 \\ 0 \\ \end{array} $	+3 N 5
11.	The counselor's tone of voice conveys the ability to share the client's feelings.		А	0 	$\begin{array}{ccc} 0 & 0 \\ 0 \\ \hline \\ 3 & 2 \\ -3 & -3 \end{array}$	+3 N 1
12.	The counselor acts as if he had a job to do and didn't care how it was accomplished.		А	-1	$\begin{array}{c} -, & -, \\ 0 \\ \hline \\ 0 \\ +1 \end{array}$	א ם 5 +:

13.	The counselor "communicates" the attitude that the client's problem is of real importance.	□ 5 +3	A	□ 4 +1	$ \begin{array}{cccc} O & N \\ \Box & \Box & \Box \\ 3 & 2 & 1 \\ -3 & -3 & 0 \end{array} $
14.	The counselor is very patient.	□ 5 +3	A	□ 4 +3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
15.	The counselor is a warm, sincere individual.	□ 5 +3	Λ	□ 4 +3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
16.	The atmosphere of the interview helps the client to see more of himself.	□ 5 +3	Α	□ 4 +3	$ \begin{array}{cccc} O & N \\ \Box & \Box & \Box \\ 3 & 2 & 1 \\ 0 & -3 & -3 \end{array} $
17.*	The counselor frightens the client.	□ 1 0	A	□ 2 0	$ \begin{array}{cccc} O & N \\ $
18.	The client feels blocked and frustrated in his attempt to relate to counselor.	□ 1 0	Λ	□ 2 -3	$ \begin{array}{cccc} O & N \\ \Box & \Box & \Box \\ 3 & 4 & 5 \\ -3 & +3 & 0 \end{array} $
19.	The counselor acts cold and distant.	□ 1 0	Α	□ 2 0	$\begin{array}{cccc} O & N \\ \Box & \Box & \Box \\ 3 & 4 & 5 \\ -3 & +2 & +3 \end{array}$
20.	The client feels the counselor has a genuine desire to be of service.	□ 5 +3	A	□ 4 +3	$ \begin{array}{cccc} O & N \\ \Box & \Box \\ 3 & 2 & 1 \\ -3 & 0 & 0 \end{array} $
21.	The client feels accepted as an individual.	□ 5 +2	Α	□ 4 +3	$ \begin{array}{ccccc} O & N \\ $
22.*	The counselor pushes the client into saying things that aren't really true.	□ 1 0	A	□ 2 0	O N D D D 3 4 5 0 0 0
23.	The counselor behaves as if the interview(s) is a routine, mechanical process.	□ 1 -1	A	□ 2 -3	$ \begin{array}{cccc} O & N \\ $
24.	The client feels a sense of satisfaction from the coun- seling sessions.	5 0	А	□ 4 +3	$ \begin{array}{ccccccc} $
25.	The counselor accepts expression of the client's thoughts and desires without condemnation.	□ 5 +3	۸	4 0	$ \begin{array}{cccc} O & N \\ $
26.	The counselor shows a flagging of interest.	□ 1 0	A	□ 2 0	$ \begin{array}{cccc} O & N \\ $

27. The counselor's techniques are obvious and clumsy. 0 Ν A 1 2 3 5 4 -3 0 -1 +3+328. The counselor is restless while talking to the client. 0 N Α 3 1 5 2 4 -1 -3 +3 0 +3 29. The counselor has a casual relaxed manner of open-0 N Α ing the interview. 5 3 2 1 +3 -1 - 3 +3 - 3 30.* The client is tricked into relating confidences he did N 0 А not wish to disclose. 3 1 2 5 4 0 0 0 0 0 31. The counselor communicates little understanding of Ν Ο Λ the client. 1 3 5 2 4 +3 -3 -2 +3-3 32. The client can talk freely about his innermost feelings. 0 Ν Α 5 3 2 4 1 +3 0 +3- 3 -3 Ν 33. The counselor's remarks make things clearer for the ۸ 0 client. 5 2 4 3 1 +3 0 - 3 +3-3 34. The client feels frustrated with the counselor. Α 0 Ν 1 2 3 4 5 -2 -2 -3 +2+235. The client distrusts the counsclor. 0 N Α 1 2 3 4 5 +3 0 0 0 -3 Ν 0 36. The counselor is awkward in starting the interview. ۸ 1 2 3 4 5 0 -3 +2+2- 3 N 37. The counselor is (to the client) a very "human" per-Ο Λ son. 5 3 2 4 1 +2 +3-3 - 3 0 38.* The counselor makes far-fetched remarks. 0 Ν Α 5 1 2 3 4 0 0 0 0 -1 N 39.* The counselor has a good sense of humor. 0 A 5 3 2 1 4 0 0 +3 -1 0 N 0 40. The counselor's tone of voice encourages the client. А □ 2 5 4 3 1

- 3

-1

-3

+3

+2

41.	The client feels grateful for the counselor's help.	A 5 +1	□ 4 ±3	$ \begin{array}{c} 0 \\ \Box \\ 3 \\ -3 \\ -1 \end{array} $	א 1 0
42.	The counselor understands completely the client's feelings.	Λ 5 0		$\begin{array}{c} -3 \\ 0 \\ 3 \\ 2 \\ 0 \\ -3 \end{array}$	N
43.	The counselor's language is confused.		2 0	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 3 \\ -3 \\ +3 \end{array}$	N
44.	The client is open, honest, and genuine with the counselor.	Λ 	□ 4 +3	$\begin{array}{c} 0 \\ 0 \\ 3 \\ -3 \\ 0 \end{array}$	и П 1
45.*	The counselor is a "clock-watcher."		2 0		N 0 5 +1
46.	The counselor gives the impression of "feeling at case."	A D 5 +3	□ 4 +3	$\begin{array}{c} 0 \\ 0 \\ 3 \\ -3 \\ -3 \end{array}$	N 1 -3
47.	The client feels more like a "case" than an individual.	A 1 -2	□ 2 −3		N
48.	The client is comfortable in the counseling situation.	Δ Γ. 5	□ 4 +3	$\begin{array}{c} 0 \\ 0 \\ 3 \\ -3 \\ -3 \end{array}$	
49.	The counselor is a co-worker with the client on a common problem.	Λ □ 5 +3	□ 4 +3	$ \begin{array}{c} 0 \\ 0 \\ 3 \\ -3 \\ -3 \end{array} $	N I 1
50.	The client respects the counselor's ability.	∧ □ 5 +2	□ 4 +3	$\begin{array}{c} 0 \\ 0 \\ 3 \\ -3 \\ -1 \end{array}$	N

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<sup>Items found by Correll not to differentiate between "good" and "poor" interviews.
(1) Weights assigned for scoring by the authors.
(2) Weights determined through Phi coefficient analysis by Correll.</sup>

STUDENT RESPONSE FORM ADAPTED FROM ANDERSON AND ANDERSON (1962) INTERVIEW RATING SCALE

Dear Course Member,

I'm a doctoral candidate in Adult Education with the College of Education, . Michigan State University, USA. I'm trying to learn more about the ways instructors communicate with adult students during the first few lessons in a course. I'd like your help.

You are invited to read the following directions and share your FIRST IMPRESSIONS of the instructor who just presented this lesson.

All responses will be confidential.

Herry Vorte

John Brown-Parker

DIRECTIONS: HOW TO FILL OUT THE QUESTIONS ON THE NEXT FEW PAGES

 Please share your FIRST IMPRESSIONS of your instructor's communication during this lesson. For example:

1. The instructor is open and	Always	Occasionally	Neve
honest with the students.	a		0

The person who answered this question thinks his/her instructor is occasionally open and honest with students in the class.

2. Please answer ALL QUESTIONS. Place a cross [x] in the box that best expresses how you feel about the instructor at this moment.

REMINDER: ALL RESPONSES WILL BE CONFIDENTIAL WORK AS QUICKLY AS POSSIBLE THERE IS NO NEED TO WRITE YOUR NAME ON THE PAPER

Please circle your age range :

60 -6 4	9	30-34	20	under
over 65	4	35-39	-24	20-
	9	40-44	-29	25-

Please now proceed to answer the questions on the following pages.
1

194

FIRST IMPRESSIONS

		Always	Occasionally	Nevel
1.	The instructor creates a feeling of warmth in his/her relationship with students.	Ģ		Ģ
2.	This instructor really understands how I feel.	Ģ	۵	Ţ
3.	The instructor's language is confusing.	Ţ	۵	Ģ
4.	The instructor tends to talk down to the students.	Ģ	۵	Ģ
		Always	Occasionally	Neve
5.	The instructor insists on being always right.		۵	
6.	I feel secure in my relationship with this instructor.	Ģ	۵	Ģ
7.	The instructor is uncertain of himself/herself.	D <u>+</u>	۵	Ģ
8.	The instructor tends to be somewhat artificial (not sincere or genuine) in his/her behaviour.		۵	Ģ
		Always	Occasionally	Neve
9.	The instructor's tone of voice conveys his/her ability to share the students' feelings.	Ģ		
10.	The instructor communicates the attitude that the students' problems are of real importance.	0	۵	
11.	This instructor is very patient.	0	۵	
12.	I believe I could be quite open and honest with this instructor.	D •		
13.	The instructor gives the impression that he/she feels at ease with this class.	0 •		
		Alwsys	Occasions Ily	New

2

		Always	Occasionally	Nevel
14.	The instructor is a warm, sincere person.	Ģ		Ģ
15.	The instructor tries to give the impression that he/she is much smarter than the students.	□ ±	۵	•
16.	The atmosphere of this classroom helps me to feel more confident.	0 •		[] :
17.	The instructor acts if he/she had a job to do and isn't so concerned about the students.			
		Always	Occasionally	Neve
18.	I feel blocked and frustrated in my attempts to relate to this particular instructor.		C	0 •
19.	The instructor acts cold and distant.	Ģ		Ģ
20.	I feel this instructor has a genuine desire to make students feel less anxious or uneasy.	Ģ	٥	ם
21	I feel accepted as an individual in this class.	Ģ		Ģ
		وزدهار	Occasionally	Neve
22.	The instructor behaves as if teaching is a routine, mechanical process.			Ģ
23.	I feel a sense of satisfaction from this initial class session.	Ģ		ם
24.	The instructor can accept expressions of the students' thoughts or beliefs without negative comments or condernation.	Ģ		0 *
25.	The instructor shows a general lack of interest in the subject he/she is teaching.	: [] :		Ģ
		Always	Occasionally	News
26.	I'm unsure where I stand with this instructor.			Ģ
27.	The instructor seems uncomfortable when trying to talk informally with students.			Ģ
28.	The instructor has a casual & relaxed manner of communicating with students.	ġ		Ģ
	••••••	Always	Occasionaliy	New

PLEASE TURN OVER TO THE NEXT PAGE

		Always	Occasionally	News
29.	This instructor shows little understanding of the adults in this class.			
30.	I feel I have the freedom to talk about my concerns or feelings in this class.		٥	
31.	The instructor's explanations are clear and straightforward.	•	D	
32.	The instructor is vague about what he/she expects from the students in the class.			0
		Always	Occasionally	Neve
33.	I distrust this instructor.			
34	The instructor is awaward in relating to the people in this class.		C	0 •
35.	The instructor's tone of voice tends to encourage the students.			
36.	I feel as if I am just another student in this class, rather than an individual with specific learning needs and interests.	[] 1	٥	□ •
		Always	Occasionally	New
37.	I feel very comfortable in this classroom situation.	•	۵	
38.	I have confidence in this instructor.		٥	
39.	The instructor is a co-worker with the students in their efforts to learn.	□ •.		
40.	I respect this instructor's ability to effectively communicate with adult students.	[] *	Π	
		Always	Occasionally	Neve

THANK YOU SO MUCH FOR YOUR TIME AND HELP. IT'S REALLY APPRECIATED.

PLEASE PLACE THIS PAPER IN THE BOX MARKED "FIRST INPRESSIONS" LOCATED AT THE FRONT OF THE CLASSROOM.

3

196

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APPENDIX E

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APPENDIX E

PROCEDURES FOR AUDIO RECORDING

- 1. PREPARATION
 - 1) Number each cassette tape with the instructor's assigned number.
 - 2) Tighten the loose tape by turning the inner spools. This avoids tangles.
 - 3) Place the tape in the recorder and rewind to zero.
- 2. MAINTENANCE
 - 1) Insert fresh batteries for each recording session.
 - 2) Set the recorder at the slowest speed to ensure one hour of uninterrupted recording.
 - 3) Set volume to mid-recording range.
- 3. RECORDING
 - Approach the instructor before the lesson begins and request to place the microcassette in his shirt or coat pocket.
 - 2) Direct the microphone towards the instructor's face.
 - For those instructors without a suitable pocket, the microcassette can be attached to a belt or a shoulder strap.
 - 4) When possible, turn on the recorder for the instructor just prior to the commencement of the lesson. Often, instructors unfamiliar with microcassettes forget to turn it on, or press the wrong button.
- 4. BACK-UP TAPE
 - 1) Place the back-up tape recorder flat on a desk, close to the instructor.
 - 2) Direct the microphone towards the instructor.
 - 3) Turn the recorder on, ensuring that the record button has been activated.
 - 4) Place a book or paper on the top of the recorder to make its presence less obtrusive.
- 5. AFTER RECORDING
 - Break off the side tabs of the tape to ensure that the tape cannot be accidentally erased or recorded over during transcribing.
 - 2) Store in a cool place away from heat and electrical or magnetic fields.

APPENDIX F

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APPENDIX F

PROCEDURES FOR TRANSCRIBING TAPES

- 1. The first hour of an audio tape is transcribed.
- 2. A transcriber with foot pedal and automatic rewind is used to play the tapes.
- 3. A tape is played in short segments to allow accurate transcribing.
- 4. Normal paragraphing and punctuation rules are used except for the following:
 - a) A new paragraph is commenced anytime a different person speaks.
 - b) A period indicates a definite pause in communication that shows closure to an utterance or series of utterances.
 - c) A comma is used to indicate a clear but temporary pause in the flow of communication.
- 5. The tape speed should only be slowed down on the transcriber to facilitate understanding of unclear sections of the tape.
- 6. Upon completion, the tape is independently replayed by an assistant to check for accuracy and errors against the completed transcript. Marginated notes are made if a substantial difference is found to occur. Mutual agreement must then be reached on its interpretation with the backup tape used as a second reference. Punctuation should be closely checked for accuracy.
- 7. The transcript is typed using double spacing. It is then proof read for spelling and punctuation accuracy or errors. Any corrections are made and a photostat copy of the final transcript produced.
- 8. The completion of this process by two people for one, one-hour lesson involves approximately 20 hours of working time.

APPENDIX G

APPENDIX G

PROCEDURES FOR UNITIZING AND CATEGORIZING TRANSCRIPTS

- 1. Two independent coders or coding teams are given copies of a numbered transcript.
- 2. The first ten pages of the transcript are read so that coders can familiarize themselves with the content of the lesson and the instructor's communication style.
- 3. The transcript is divided up into segments of five pages. This is a realistic and obtainable mass of material to code in a short concentrated coding session.
- 4. Each segment of the transcript is first broken up into utterances, using the rules for unitizing described in Appendix C.
- 5. Each utterance is then coded according to the definitions of the coding scheme explained in Figures 11 and 12 on pages 53 and 54.
- When the transcripts are completely coded, random samples of segments of over 160 utterances are recorded on a worksheet (see Appendix V).
- 7. Calculations of intercoder reliability coefficients with another independent coder are then made.

APPENDIX H

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APPENDIX H

SAMPLE TALLY SHEET

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Utterances

Checked:

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APPENDIX I

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APPENDIX I

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AMPLE PRINTOUT SEQUENCE FOR ONE INSTRUCTOR

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APPENDIX J

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SAMPLE STATISTICAL REPORT FOR ONE INSTRUCTOR

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APPENDIX J

13/12/81 REPORT **

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SAMPLE TWO-WAY REPORT FOR ONE INSTRUCTOR

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203

APPENDIX K

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SAMPLE REPORT OF SEQUENCES OF THREE UTTERANCES

APPENDIX K

204

APPENDIX L

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APPENDIX L

GUETZKOW'S PROCEDURES FOR ESTIMATING UNITIZING RELIABILITY

Guetzkow's (1950) formula for calculating the reliability of the unitizing process is:

$$U = \frac{0_1 - 0_2}{0_1 + 0_2}$$

'U', the reliability of the unitizing process is expressed as the difference between coders by a percentage of the sum of the utterances obtained by each coder. 'O' represents the number of units obtained by the first coder and ' $0\frac{1}{2}$ ' is the number of units obtained by the second coder. 'O' is always the larger number, regardless of the coder involved.

As illustrated in the figure below, Guetzkow (1950) also provides a simple and accurate graphic procedure to calculate an index of coder accuracy at the .01 or .05 levels of significance ('o/n'), given that the percentage difference between coders ('U') is obtained from the segments of approximately one hundred utterances ('N').



FIGURE

RELATIONSHIP OF CODER ACCURACY TO AMOUNT OF MATERIAL CODED (Guetzkow, 1950. p. 50)

For example, a percentage difference between two coders is 10% in one segment of 100 utterances. Using the abscissa for N on the 1% level scale, the point on the graph is located for 'U' = .10, and N = 1 (one segment of 100 utterances). The point falls slightly above the .05 index line for coder accuracy.

APPENDIX M

APPENDIX M

GUETZKOW'S PROCEDURES FOR ESTIMATING CATEGORIZING RELIABILITY

To ensure agreement among coders when assigning category codes to utterances, Guetzkow's (1950) procedure for estimating categorizing reliability was used. This was based on the assumption that dividing a transcript into utterances is independent of the subsequent assignment of a category code to each utterance. The procedure for calculating the reliability of categorizing requires the use of two formulae as shown in Figure 1.

EQUATION 1:
$$P = \frac{t^2 + 2nP^1}{2(t^2 + n)} + \frac{\sqrt{(t^2 + 2nP^1)^2 - 4(t^2 + n)n(P^1)^2}}{2(t^2 + n)}$$

EQUATION 2:
$$P = \frac{K}{K-1} p^2 - \frac{2}{K-1} p + \frac{1}{K-1}$$

- p = the probability with which both coders correctly classify an utterance
- K = the number of categories in the classification scheme
- P¹= the proportion of agreement actually obtained between coders
- P = the theoretical proportion of 'n' utterances upon which two coders can agree

t = a t-test (t = 2.58 or 1.96) used to estimate the lower limit of p at the 1% or 5 % levels of significance

n = the number of utterances

FIGURE 1

FORMULAE FOR ESTIMATING RELIABILITY OF CATEGORIZING (Guetzkow, 1950. pp. 47-58)

A practical example of the use of Guetzkow's procedure is illustrated in Figure 2.

$$\frac{\text{EQUATION 1}}{\text{P}} = \frac{(2.58)^2 + (2 \times 400)(.90)}{2[(2.58)^2 + 400]}}{\frac{1}{2[(2.58)^2 + (2 \times 400)(.90)]^2 - 4[(2.58)^2 + 400]400(2.58)^2}{2[(2.58)^2 + 400]}}{2[(2.58)^2 + 400]}$$

$$= .855$$

EQUATION 2:

The value P = .855 is substituted in equation 2.

 $.855 = \frac{35}{35 - 1}p^2 - \frac{2}{35 - 1}p + \frac{1}{35 - 1}$ $\therefore p = .92$

FIGURE 2

EXAMPLE OF THE USE OF FORMULAE FOR ESTIMATING RELIABILITY OF CATEGORIZING (Guetkow, 1950. pp. 47-58)

The proportion of agreement between two coders (P) in this example was estimated as .90 on 400 utterances in a category set consisting of thity-five classifications. This proportion was calculated from an intercoder reliability worksheet used in the field study as shown in the Figure 3. To test the probability (p) with which the two coders correctly classified the segment of 400 utterances at the 1% level of significance, the values P =.90, t = 2.58, and n = 400 were substituted in equation 1. Finally, P = .855 was substituted in equation 2 to calculate the probability (p = .92) with which both coders correctly classify an utterance. INTER-CODER RELIABILITY WORKSHEET

Subject:	Craft	1 ا	Inst. #23 Pg. #:	1-5	Week: <u>13</u>
	Code	rA: Jo	han wa	er B: Jin	- / Ross
Category	Coder A	Coder B	AZ	BZ	Z Disagree
1	4-6	46	11.53	H. 56	.03
2 1	-	2		.50	. 50
ذ	29	26	7.27	6.53	•74
4	1	; -	.25	.Z.	.25
5.	35	36	8.77	9.05	. 28
6 1	23	22	5.76	5.53	•23
7	96	110	24.06	27-64	3.58
8	17	17	4.26	4.27	•01
9	-	-	-	-	-
10 i	1	1	· 25	· 25	-
11	4	3	1.00	0.75	• 25
12 -	1	1 /	0.25	0.25	-
13 ·	104	104	26.07	26.13	• 06
41	2	2	0.5	0.5	
42	-	-		-	-
43	4	2	1.00	0.5	•50
45	3	3	0.75	0.75	. 🗕
46	3	2	0.75	0.5	·25
47	4	6	1.00	1.51	51
48	1	-	0.25	-	• 25
49	-	5 9 9			1
410	-	1			
411 !	-				1
412	-				
51 :	8	6	2.01	1.51	. 50
52	-				
53	2	<u>1</u>	• 50	·25	•25
54	-				
56	2	2	.50	.50	-
57	12	7	3.01	1.76	1.25
58	1	-	0.25	-	0.25
59	1	-	0.25	-	·25
510	~	-	-	-	-
511	-	-	-	-	-
512	•	-	-	•	-
TOTALS	40C	399			9.94

Proportion of coder agreement, $P^{1} = 100 - 9.94 = 90.06\% = .90$

Guetzkow (1950) also provides an accurate and simple graphic procedure for estimating categorizing reliability. Figures 4 and 5 can be used to obtain an estimate of the value of interaction reliability (p) used in the previous example.



FIGURE 4

RELATIONSHIP OF OBTAINED AGREEMENT TO THEORETICAL AGREEMENT (Guetzkow, 1950. p. 53)

In this figure, the curve labelled $P^1 = .90$ is used. With n = 250+ on the abscissa for the 1% level scale, P is read on the ordinate as 22.85. In Figure 5 on the next page, the curve for K between 10 and 50 is approximated for thirty-five categories. With 'P' on the ordinate as .85, the value 'p' on the abscissa is found to be = .91. The graphical estimate of .91 is very close to the estimate of .92 computed from the two formulae and hence the graphic method appears adequate for training purposes.

Guetzkow (1950, p.54) argues that for practical purposes, "experimenters need not have more than 150 units of qualitiative material classified by two coders to obtain stable estimates of the probability with which each unit is classified correctly." He concurs with Frick and Semmel (1978) that periodic checks of masses of up to 150 utterances are needed to ensure coding standards are maintained.



FIGURE 5

RELATIONSHIP OF THEORETICAL AGREEMENT TO THEORETICAL CORRECTNESS OF CLASSIFICATION (Guetzkow, 1950. p. 52)

Literature precedents supporting Guetzkow's approach

Frick and Semmel (1978) suggest a number of practical means for minimizing intercoder error. Coders should reach nearly perfect agreement on unambiguous examples with the expert coder before actual data collection. Coders should also be expected to reach agreement on ambiguities that might arise in coding. They emphasize:

Criterion-related and intraobserver agreement measures have been recommended for both before and during a study, but these measures should not be used as evidence of observer agreement in the actual classroom. Rather, these are measures to assist an investigator in documenting adequacy of observational skills. The purpose of such efforts is to minimize the possibility that observers are primarily responsible for potentially unreliable observational data.

Ellis (1977), argues that the critical issue is that only a coding scheme that can be learned and applied with consistency is reliable. He identifies four sources of poor reliability:

The first three are research design such as inadequate data sampling; poor training of observers; and the coding scheme itself (e.g., too few categories, poor category definition). The fourth problem area is statistical tests for reliability. (Ellis, 1977. p. 12).

Ellis (1977), Hirokawa (1980) and Donohue et al. (1981), argue for the superiority and appropriateness of Guetzkow's estimate of reliability with sequential interaction data. Guetzkow's (1950) formulae are straight forward procedures for calculating unitizing and categorizing reliability coefficients. As well, they take into account the complexity of the coding scheme and the degree to which coders agree with each other. APPENDIX N

APPENDIX N

PROCEDURES USED DURING THE PILOT STUDY

Step 1: Selection of Participants for the Pilot Study

Administrators, instructors and learners of two colleges were visited and permission was sought and granted to: 1) make an audio tape of the first class meeting in the term and 2) to allow ten to twelve minutes at the end of their lesson to administer a short learner response form. Times and dates were finalised for data collection.

Step 2: Procedures to Protect the Anonymity of Participants

To ensure anonymity, names of institutions or participants were deleted from the recordings and assistants were requested not to discuss the contents of each tape.

Step 3: Testing the Suitability of Various Types of Microcassette Recorders

A microcassette recorder was selected that recorded sixty minutes per side of each tape, was small enough to fit snugly into an instructor's coat pocket, and was sensitive enough to pick up quality recordings of both the instructor and learners in a small group setting.

Because of the unobtrusiveness of the microcassette recorder, it was found that instructors and learners were no longer aware of its presence after the first five minutes of the lesson. Procedures for audio-recording are described in Appendix E.

Step 4: Transcribing and Typing Transcripts

Professional transcribing services proved too expensive so an alternative procedure for handwriting original transcripts, independently checking them against the tape, typing and proof reading was developed. These procedures are described in Appendix F.

Step 5: Establishing the Adequacy of a Student Response Form

As shown in Appendix D, the fifty items of the Interview Rating Scale (Anderson and Anderson, 1962) are divided so that eighteen items refer to client behaviors and the remaining thirty-two items refer to counselor behavior. Clients are asked to indicate on a scale from 1 to 5, their perceptions of the counseling experience. Scores may range from 250 (ideal) to 50 (minimum).

This rating scale reflects observable communication behaviors that are conceptually consistent with the verbal management of another's intent. That is, it is assumed that instructor's who are successful in establishing adequate rapport and 'ideal relationships' are also seen by their learners as well intentioned. Instructors who are less successful in establishing classroom rapport will be seen as being less well intentioned. It is further argued that the most highly rated factors for successful counseling of adults, the listening and communication skills, are not the sole domain of 'professional counselors'. As Hall (1977) and Riggs (1978) suggest, the personal side of giving counsel and establishing rapport in a relationship is shared by instructors and counselors alike. This instrument has also been used successfully as a criterion measure of the quality of communication in a relationship by Correll (1955); Brams (1961) and by Riggs (1978).

Given the conceptual consistency of this instrument, the rating scale was adapted for use in an adult education classroom by changing the nomenclature of 'counselor' to 'instructor'; 'interview' to 'class'; 'client' to 'learner' and the title 'Interview Rating Scale' to 'Communication Rating Scale'. Further minor modifications were made after discussions with small groups of college instructors and learners.

In the pilot study, one hundred and fifty adult learners were asked to complete the modified Communication Rating Scale. Learners were encouraged to circle any word or phrase that appeared ambiguous and then invited to discuss any suggestions that might improve the instrument.

The study revealed that: 1) adult learners were uncomfortable with 'rating' their instructor on their first meeting but agreed they could offer 'first impressions' that might change over time; 2) some older adult learners had difficulty with the small type on the scale and found the mass of numbered boxes and the fifty questions a little overwhelming late in the evening; 3) the average time to complete the rating scale was between ten to twelve minutes; and 4) the scores recorded for eight instructors clearly distinguished those ranked high by learners as effective in establishing rapport and those ranked low. For example, in a possible range of 50 to 250, scores ranged from 147 to 250, and the highest mean score was 239 compared to the lowest mean score of 192.96.

Based on these findings, subsequent discussions with instructors representative of the sample used in the field test and review by a panel of judges, final modifications were made to the instrument. Care was taken to substitute language that was more easily understood by Australian learners and which did not detract from the questions' semantic accuracy.

The major modifications included: 1) A change of the instrument's title from 'Communication Rating Scale' to 'First Impressions'; 2) Use of larger, bolder type face and a reduction in the number of questions from fifty items to forty items. The criterion used for omitting these items was based upon the item analysis of the scale undertaken by Correll (1955). He found eight of the fifty items were of little value in differentiating between 'good' and 'poor' communicators.

Finally, a test of the completed instrument with a small group of learners, similar to those who would use the instrument in the field test, showed the rating scale took no longer than five to six minutes to complete. All directions and questions were easily understood and acceptable to the learners.

Step 6: Establishing Acceptable Intercoder Reliability Coefficients using the Technique

Typed transcripts of the audio tapes of six instructors were coded and analyzed. A colleague was trained to use a draft revision of the coding technique. Selected sections of the transcripts were coded independently and compared for intercoder agreement with the researcher. Intercoder agreement was assessed by the use of a procedure developed by Emmer and Millet (1970). This formula is:

 $Coder agreement = 1 - \frac{Coder A - Coder B}{Coder A + Coder B}.$

The formula uses the total tabulation of all utterances identified by each coder. 'A' is always the larger total, regardless of the coder involved. Intercoder reliability coefficients falling between .50 and .80 were established. Frick and Semmel (1978) and Bradley et al (1978) suggest reliability coefficients falling around .80 are practical and adequate figures to aim for.

A comparison of coded transcripts of the instructor rated as the most effective at establishing rapport was compared with that of the least effective instructor. Differences were found in the frequency of categories and utterance sequences used with particular categories. For example, the most effective instructor used the categories of 'requesting', 'suggesting' and 'clarifying' in a ratio of 4:1 to those used by the least effective instructor.

Step 7: Thanking Participants in the Pilot Study

On completion of the pilot test, letters of thanks were sent to all administrators and instructors who participated in the pilot study. At the end of the study, a follow up letter of thanks, a copy of the final classification scheme and a summary of the study's findings were also sent to all major participants in the pilot study. Samples of the types of letters sent are contained in this Appendix. CORRESPONDENCE

(Address) (Date)

(Name and address)

Dear (Name)

I wish to thank you for participating as a member of the (pilot study, field test or reaction panel) in the research to design, develop and field test a technique to measure adult education instructors' verbal management of intent.

Your assistance and cooperation have made a substantial contribution to the success of the overall research endeavor.

For your information, I have enclosed a brief summary of my research findings, the final revision of the Management of Intent Classification and Code System, the First Impressions Student Response Form. I trust they may be of some interest to you in understanding more about how instructors tend to verbally manage their intent, and how some students perceive their instructor's intent.

Again, thank you for your help. If you wish further information, please feel free to contact me at any time. I will be happy to share other aspects of the research or respond to any specific inquiries.

Regards,

John Brown-Parker

APPENDIX O

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APPENDIX O

PROCEDURES FOR SELECTING PANELISTS

Step 1: Contacting Prospective Panelists

Prospective participants were contacted first by telephone and second by personal visit to provide details of the research project, the intended function of the panel members, a timeline for completing the task and a request for the candidate's participation.

Step 2: Selecting the Panel Members

Ten candidates were approached and six participants were chosen. From the four panelists at Michigan State University, two panelists had previously conducted extensive research in classroom assessment techniques. The third panelist was selected for his broad background in both adult education, communication and familiarity with systems theory. The fourth panelist was selected for his extensive expertise in communication systems theory and the analysis of sequential interaction data.

Of the two Australian panelists, one was selected because of his interest in legal definitions of intent as well as his experience in teaching to diverse groups of adults. The other panelist was selected for his competence as an adult education practitioner, an expertise in systems analysis and a wide knowledge of adult education practices throughout Australia.

Step 3: Tasks for the Panelists

Each participant received by mail, copies of the second draft of the technique and was asked to complete the feedback forms and share comments on a cassette tape as outlined at the end of this appendix.

Step 4: Collection of Feedback Forms and Followup

The completed forms and tapes were collected and a letter of thanks was sent to each panelist. After completion of the study, a further letter of thanks was sent to each panelist along with copies of the final revision of the classification scheme and a summary of the general research findings.

FEEDBACK FORMS FOR REACTION PANEL

FEEDBACK FORM FOR CONTENT VALIDATION OF THE SCHEMA DEVELOPED TO MEASURE AN INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT

PURPOSE: The purpose of this form is to solicit your reactions to questions regarding the schema that has been developed to classify the verbal behaviors used by an instructor to manage a learner's perceptions of instructor intent.

You will be asked to respond to specific questions about each of the fourteen classifications used in the schema.

You will be asked to respond to a number of general questions relative to the overall strengths and weaknesses of the schema.

As well, you will be invited to make any general suggestions regarding the plausibility of the conceptual framework that underpins the logic of the schema.

YOUR CANDID RESPONSES ARE WELCOMED. YOUR CRITICISMS AND SUGGESTIONS WILL BE GIVEN CONSIDERABLE ATTENTION IN THE FINAL REVISION OF THE SCHEMA.

DIRECTIONS:

IS: <u>STEP 1 - FAMILIARIZATION WITH THE STUDY AND RELATED CONCEPTS</u>

- 1. Please read the attached extract from Section 1 of the research proposal, "Identifying the Problem."
- Please read the attached copy of Section 3, Part A "A Conceptual Framework for Examining Management of Intent."
- 3. Please read the schema for an Instructor's Verbal Management of Intent located on the next two pages of this form.

STEP 2 - ANALYSIS OF EACH CLASSIFICATION USED IN THE SCHEMA

- 1. Please refer to the questions on the attached <u>blue</u> colored form titled "Classification Analysis".
- 2. Please read each classification and respond to the question/s asked about that particular classification in the space provided on the blue'Classification Analysis' form.
- 3. Please feel free to note any additional comments in the space provided on the blue form, or if you prefer, marginate comments against the classifications on the next two pages.

**** Turn to the back page for further directions ****
DIRECTIONS:	STEP
-------------	------

STEP 3 - GENERAL QUESTIONS

(CONTINUED)

- 1. Please read the general questions on the yellow form titled " General Questions for Tape-Recorded Responses".
- 2. Please note down your response to these questions.
- 3. Using the cassette tape provided, you may wish to expand or further clarify your written comments or suggestions to these general questions.

If this is the case, would you first identify the question you are to answer by quoting its number, and restating the question itself.

4. Any additional written or oral comments regarding the appropriateness of the scheme or its supporting conceptual scheme would be welcome.

STEP 4 - RETURN OF FEEDBACK TO RESEARCHER

1. Please place all materials in the envelope provided and phone :

Mrs. Judi Brown-Parker 1533-F Spartan Village Phone: (517) 355-2913 East Lansing MI 48823

2. Mrs. Brown-Parker will call and pick up the envelope.

***** THANK YOU SO MUCH FOR AGREEING TO BE ON THIS ***** PANEL OF EXPERTS TO HELP VALIDATE THE CONTENT OF THIS SCHEMA FOR AN INSTRUCTOR'S VERBAL MANAGEMENT OF INTENT GENERAL QUESTIONS FOR TAPE-RECORDED RESPONSES

PART A: THE SCHEMA

What are three strengths of this schema ?

What are three weaknesses of this schema ?

What additional changes can you recommand to improve the overall quality of this schema ?

PART B: THE CONCEPTUAL FRAMEWORK

What are three strengths of the conceptual framework ?

What are three weaknesses of the conceptual framework ?

What additional changes can you recommend to improve the overall quality of the conceptual framework of this study ?

***** A cassette tape has been included in this package should ***** you wish to excand of further clarify your written comments or suggestions

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CLASSIFICATION ANALYSIS SHEET

COMENTS

Is the description of the Yes No behavior stated clearly ? Yes No

Is the classification Yes label appropriate ?

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SHARING 4 Do the sample cues assist understanding ?

ž

Yes

Does the inclusion of this Yes classification make sense?

2

Would you make a change ? Yes No

EQUALISING

COMENTS

Is the description of the Yes No behavior stated clearly ? Is the classification Yes No label appropriate ? REGARDING 5 Do the sample cues assist understanding ? Yes No Does the inclusion of this classification make sense? Yes No

Would you make a change ? Yes No

220

(Sample)

919 SHEEL	COMENTS					COMENTS						COMPANS			(Sam	ple)
	N N	2	2	2	2		₽	9	9	2	2		Q	2	2	2	£
5	Yes	Yes	Yes	Yes	Yes	.	Yes	Yes	Yes	Yes	Yes		Үев	Ycs	Yes	Yes	Yes
	Is the description of the behavior stated clearly ?	Is the classification label appropriate ?	Do the sample cues assist understanding ?	Does the inclusion of this classification make sense?	Would you make a change ?	Is the description of the	behavior stated clearly ?	Is the classification label appropriate ?	Do the sample cues assist understanding ?	Does the inclusion of this classification make sense?	Would you make a change ?		Is the description of the behavior stated clearly ?	Is the classification label appropriate ?	Do the sample cues assist understanding ?	Does the inclusion of this classification make sense?	Would you make a change ?
			9						2						œ		
			SUGGESTING						STATING	EXPLAINING					CLARIFYING		

CLASSIFICATION ANALYSIS SHEET

221

CORRESPONDENCE

(Address) (Date)

(Name and address of panelist)

Dear (Name of panelist)

Just a note to thank you for participating as a member of a reaction panel of five judges in my research to design, develop and field test a technique for measuring adult education instructors' verbal management of intent.

Your assistance and cooperation has made a substantial contribution to the further refinement and modification of my conceptual framework and classification system.

I am delighted to report that I have now recorded the initial class meeting of thirty two adult education instructors. The student response form "First Impressions", designed to rate an instructor's ability to establish initial rapport with a class, proved sensitive enough to clearly distinguish a group of "high" and "low" scores.

At present, Judi and I are now transcribing and typing up cassette recordings of the five instructors with the highest student mean ratings and the five instructors with the lowest student mean ratings.

During the last six weeks I have been training a research team of five quadriplegics to code the completed transcripts. So far, we have reached 80% agreement in breaking up transcripts into appropriate units of measurement (utterances). This Tuesday, we are aiming for 80% inter-rater agreement between categories. Wish me luck! Working with this group of handicappers has become one of the more exciting and rewarding aspects of my research.

I also have some other good news to report. A good friend and masters student in adult education with the University wants to extend the relational aspect of my schema for his thesis. I already appreciate that my schema could be strengthened by an additional relational dimension between learner and instructor but do not have the time nor the resources to undertake the task. I am delighted to see that someone is prepared to pursue the next logical step in my inquiry into the verbal management of intent. I must apologise for taking so long in writing to you. My procrastination is not a reflection of my lack of appreciation for the obvious amount of time and effort you put into providing me with helpful and insightful feedback.

I'm afraid that before Judi's return I was swamped with arrangements for my data collection as well as the demands of developing and teaching a new program at the Institute. After Judi's return, I'm afraid I became swamped with the pleasant demands of my new research assistant whom I hadn't seen for seven months! (Classification: Repairing; Categories: Apology and Excusing - legitimate!)

But, thankyou again for your help. It has been greatly appreciated. As soon as this frantic madness of transcribing, typing, coding, and analyzing data subsides, I shall provide you with a more coherent and systematic summary of the final revision of the schema and conceptual framework for my research.

Kind Regards,

John Brown-Parker

APPENDIX P

APPENDIX P

CHANGES MADE TO THE CLASSIFICATION SCHEME ON THE RECOMMENDATION OF THE PANELISTS

Changes to the Conceptual Framework

The logical and empirical requirements of an open system were specified along with more precise explanations of the purpose, functions and parts of the system

Diagrams were simplified and modified to show the dynamic and circular nature of the system. Complex diagrams were divided into more easily understood segments with accompanying explanations of the interrelationships between different parts of the system

Changes to the Classification Scheme

Categories 13 and 14 were collapsed into one category labeled 'Learner'. This included all learner verbal interaction with the instructor.

Sample cues were refined and minor modifications were made to most categories in the classification scheme. The distinction between the categories 'Apology' and 'Penance' was clarified.

Changes to the Coding Technique

Scott's <u>Pi</u> coefficient for estimating intercoder agreement was replaced by Guetzkow's (1950) formulae for unitizing and categorizing reliability. It was suggested that as transcripts had to be first broken up into smaller units, Guetzkow's (1950) reliability measures would be more appropriate.

The explanation of the coding technique was expanded to include more comprehensive descriptions of: 1) the design for recording and transcribing; 2) the design for coding categories and combination categories; 3) rules for unitizing and categorizing; and 4) procedures for establishing reliability, validity and data analysis.

A number of useful suggestions regarding the sufficiency of the learner response form resulted in modifications to the information page and the deletion of two questions. APPENDIX Q

APPENDIX Q

PROCEDURES USED TO IDENTIFY AND TRAIN A CODING TEAM

Step 1: Identifying Persons for the Coding Team

It was necessary to identify a number of intellectually able persons who had the time, commitment and concentraton to be trained as coders and, once competent, were prepared to be employed to code large masses of data. Contact was made with a number of handicappers and occupational therapists. The practicalities of approaching paraplegic or quadriplegic persons for assistance were discussed.

An occupational therapist in charge of a program training handicappers was contacted by phone and then visited (see this Appendix for a summary of the proposal). The proposal was presented at two meetings with the occupational therapist and administration staff of the hospital. The proposal was not seen as appropriate for the hospital's clientele but a referral was made to a sheltered workshop managed by an independent quadriplegic association.

A dozen members of a residence run by a group of physically handicapped people were visited. The proposal was explained and procedures for coding were demonstrated. Specific needs of potential coders were discussed. An invitation was made to join the coding team and a further meeting was arranged so that interested persons could discuss specific details for scheduling and payment.

Step 2: Preparing a Training Schedule

A followup meeting with five interested persons was held and the following arrangements were made:

- 1. Weekly two-hour training sessions were to be held in the evening at the coding team's residence.
- 2. Target dates were set for reaching acceptable levels of intercoder agreement and for completion of the coding of the field test transcripts.
- 3. Mutual agreement upon payment was negotiated.

Step 3: Training of Coders

A training schedule, as described at the end of this appendix, was successfully completed after a total of twenty-four hours of training over twelve two-hour sessions.

In week 7, four coders obtained unitizing reliability coefficients ranging from .84 to .99, while the other coder's coefficients ranged from .44 to .66. After review and practice, all coders gained unitizing reliability coefficients ranging from .91 to .99 in week 8. In week 9, a controlled assessment determined the group's level of agreement for categorizing transcripts. Intercoder reliability coefficients from .35 to .81 were produced. It was agreed that given a time constraint, some coders with extreme physical disabilities became frustrated when they could not physically sustain their coding rates. By consensus it was decided to work in pairs with the most physically handicapped quadriplegic working with the least physically handicapped paraplegic. One coder, acknowledged as the most competent, agreed to work independently.

After review, a second assessment in week 11 produced reliability coefficients ranging from .65 to .82 between four coders. Coefficients between the five coders and the principal researcher ranged from .74 to .82.

Step 4: Coding of Transcripts and Remedial Training

Week 12 was devoted to review, practice and improving the classification scheme and coding technique. Field test transcripts were independently unitized and categorized by the researcher and the coders. Unitizing and categorizing reliability coefficients above .80 were established for the initial 400 utterances of the first three coded transcripts and acceptable levels for segments of 160 utterances in the other seven transcripts were achieved.

Reliability coefficients were reported to each coder and several small group review sessions focused on commonly occurring coding errors.

Step 5: Closure to the Coding Phase of the Research

As an acknowledgement of the coding team's determination, loyalty and success, it was arranged for an article to be published in the Higher Education supplement of a national newspaper as displayed in this appendix. A dinner was held with the team and final contractual payments made.

At the end of the study, letters of thanks and a summary of the research findings were sent to each member of the coding team.

CORRESPONDENCE

(Address) (Date)

(Name and address of Occupational Therapist)

re: Proposal to invite a group of disabled persons to join a research team to assist in coding transcripts of verbal behaviour of adult education instructors.

Dear (Name)

I would like to confirm our conversation last (*Vate*) regarding the possibility of inviting a small group of disabled persons (perhaps a group of quadriplegic persons) to assist me in coding transcripts of verbal behaviour in adult education classrooms.

As I suggested to you, I would invite interested disabled persons to join a small team of research assistants. Each research assistant would be trained by myself or my wife to code transcripts of adult education instructors' verbal behaviours [see attached schema that research assistants would need to understand and apply].

Training could be carried out as a group activity, in pairs or on an individual basis at the disabled person's home. Training would continue until team members achieved an acceptable level of inter-rater agreement. After this level of competence was achieved, each member of the team would be asked to code 2-3 transcripts used in the research project.

The coding of transcripts could be carried out in the research assistants home, at their own pace and at times that are convenient to them. I envisage a time frame of about 3 months from the training of the team to the completion of the last transcripts.

The intellectual requisite for this task would be a person of average ability. The physical aspect of the task requires the research assistant to be able to write or type a number (1 to 13) against a utterance made by the classroom instructor on the transcript.

It is envisaged that payment for participating as a member of the research team would be negotiated on a contract basis at a mutually acceptable rate to each party.

The research project itself, is for my own dissertation for a doctoral degree in Adult & Continuing Education with the College of Education, Michigan State University, USA [attached is a letter of introduction from my dissertaion Director, and an abstract of my research proposal]. My wife Judi, who also is a doctoral candidate in Education at the same university will be assisting me in the training program. I've attached her professional profile to give you some idea of her background and competence.

Lastly, I would like to add that the idea for utilizing the intellectual talents of a physically disabled group of persons was initiated by [Name] a disabled person and colleague of mine at the [Name of

(Name) a disabled person, and colleague of mine at the (Name of Institution) It made a lot of sense to make this part of my research project a postive learning experience to improve the self concept and confidence of a physically disabled but intellectually able group of persons who could responsibly carry out a task that requires time, commitment and concentration.

I trust this summarizes some of the major aspects of our discussion (Name) With the professional advice and suggestions from you and your staff I believe this proposal might meet a mutual need of myself, and the clientele you serve.

I request that you and your colleagues consider this proposal and perhaps let me know of your decision by mid-September.

Thank you for your help and time in what I know is already a very full schedule. If you have any further questions please phone me at any time on (Number)

Yours Sincerely,

John Brown-Parker

GOAL

To train five independent coders to reach intercoder reliability coefficients at the .95 level for unitizing and at the .80 level for categorizing.

DURATION

24 hours of training over 12 two-hour sessions were conducted each Tuesday evening from August 11 to October 27, 1981. Ten minute coffee breaks after fifty minutes of training were allocated.

METHOD

Small group discussion; recognition games and quizzes; brainstorming; review, reflection and evaluation sessions; timed and self-paced application exercises.

AIDS

Flashcards; prepared exercises; overhead transparencies; charts and large paper aids that can be progressively assembled, matched or placed in sequence; folders and thick stemmed pencils (for quadriplegic coders).

SCHEDULE

- <u>Week 1</u> General introduction to the conceptual framework, classification scheme and coding technique using transparencies and handouts. Short application exercises matching labels to definitions and sample cues. Use of paper aids that could be progressively assembled.
- <u>Week 2</u> Understanding and recognizing categories 1-5. Team game to match sample cues with the correct category. Review and assignment to practice coding of prepared phrases and sentences.

<u>Week 3</u> - Review. Understanding and recognizing categories 6-13. Team game to match sample cues with correct categories. Application assignment to code prepared phrases and sentences.

- <u>Week 4</u> Use of flip cards to automatically respond to code numbers and to match definitions to a classification. Discussion session and review of progress. Setting target dates and goals for training. Introduction of the pilot test transcripts in a short application exercise.
- <u>Week 5</u> Flip card review for remembering and matching code numbers, classifications and sample cues. Introduction to the concept of unitizing. Application assignment.
- <u>Week 6</u> Review quiz and flip card exercise. Unitizing practice in pairs. Discussion and suggestions for improving classification scheme. Feedback on progress.

- <u>Week 7</u> Trainees facilitate review session and flip card exercise. Practice in pairs to reach acceptable unitizing coefficients. Target set to reach agreement next session.
- <u>Week 8</u> Controlled and timed individual unitizing exercise to reach acceptable levels of agreement. Development of rules for unitizing.
- <u>Week 9</u> Trainees facilitate review session and flip card exercise. Coding rules for categorizing utterances introduced and discussed. Individual practice and assignment.
- <u>Week 10</u> One hour categorizing test for individual coders. Immediate feedback and discussion of errors. Coding teams formed to: 1) overcome frustrations with physical limitations when coding; and 2) give support and confidence to the weaker coders. Emotive plea to practice during the ensuing week to 'break down the last barrier to success'.
- <u>Week 11</u> One hour categorizing test for coding teams. Acceptable levels of intercoder agreement reached. Celebration.
- <u>Week 12</u> Reflection and review session. Suggestions for improving the classification scheme, coding technique and rules for unitizing and categorizing. Terms and goals set for coding the field transcripts.

Note: The coding team comprised of four quadriplegics and one paraplegic.



NEWSPAPER ARTICLE ON THE CODING TEAM

MEMBERS of the research team talk over their work. Disabled help out with research

By MICHELE FERGUSON

- PhD STUDENT John Brown-Parker faced a major problem when he returned to Sydney from Michigan State University to begin practical work for his study.
- Where could he find a research team with the patience, perseverance and intellectual skills necessary to carry out the demanding work his study required?
- At his wits' end, he asked the advice of a co-worker, Mr Fred Kaap, at the International Training Institute where he had begun work.
- Brown-Parker approach a group of physically disabled people to help - people to whom determination was part of daily life.

So Mr Brown-Parker met a dozen members of Astor House, the base of a group of independent. physically handicapped people.

- Five of them agreed to take on the arduous task on a con-tract basis. Mr Brown-Parker trained David Brice. Jim McGrath, Bob McKenzie, Ross Smith and Bruce Teakle for the long job ahead.
- Mr Brown-Parker's study arose from a concern that many adult education teachers became dismayed when their well-intentioned efforts to create a rapport with students often resulted in learners dropping out and classroom conflicts.
- Mr Kaap suggested that Mr His work involves a method of systematically inquiring into the instructors' verbal management of intent. He has designed a framework and measurement technique for

this purpose.

- After doing a pilot study. Mr Brown-Parker had taped 32 initial classes of NSW adult instructors which were transcribed for the study.
- The job of his five-man research team was to learn how to break down sections of speech into units and code them according to a classification system Mr Brown-Parker had developed.
- "This was the crucial phase of the study." he said. "They had to obtain an acceptable level of inter-rater agreement."
- The team has now achieved a level of 80 per cent interrater agreement. a high level by anyone's standards.
- "Every member of the team is extremely capable and their work ethos of sticking a job out until it is completed is obvious in their determination to continue the job." Mr Brown-Parker said.
- "Looking at the results so far I am hoping the study will be a success."

APPENDIX R

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APPENDIX R

INVITATION TO PARTICIPATE IN FIELD TEST

Dear Colleagues.

(Address) (Date)

I'm a doctoral candidate in Adult Education with the College of Education, Michigan State University, USA. I'm trying to learn more about the ways instructors communicate with adult learners during the first few lessons of a course.

I'd like your help.

1. HOW YOU COULD HELP:

First, I would like your permission to record the first or second meeting you have with your class(using a micro-cassette recorder).

<u>Second</u>, I'd ask that you give me ten minutes at the end of the lesson to give out a student response form. This form requests the students to give their "first impressions" of particular communication that took place during the lesson. [This form takes about 5-10 minutes to complete. I will collect the forms as the students leave the classroom .]

2. HOW WILL THE FINDINGS OF THIS STUDY BE USED ?

All recordings of your lesson and the students responses will be strictly confidential. Neither you, your class or even your institution will be identified in my research study.

You and your students may be assured that the highest ethical & professional standards have been, and will continue to be followed throughout the study to safeguard the confidentiality and anonimity of all participants.

3. WILL THERE BE ANY USEFUL FEEDBACK ?

I hope that by the end of the term I will have analysed my data and be able to share with you a tentative summery of my findings.

I would be more than happy to sit down with individual instructors who participate and talk over their particulat communication style, or the general focus of my research into communication in adult education classes.

4. HOW I WOULD LIKE TO THANK YOU FOR YOUR ASSISTANCE:

To simply say thanks to those instructors kind enough to help me out, my wife and I thought it might be a nice idea if we could invite you around to our home for a barbeque.

Apart from sharing some good wine and conversation we both would like the opportunity to informally meet other adult education practioners who have a common professional interest (both my wife and I have been away from Aussie for 10 years and we've a lot to learn about our own country !).

I could make arrangements with the Principal for a suitable date around the end of the term.

ant

John Brown-Parker

233

CORRESPONDENCE

(Address) (Date)

(Name and address of College Administrator)

re: Invitation to adult education instructors to participate in a research project during Term 3, September 1981

Dear (Name)

First, let me thank you for giving up your time last week so we could discuss my doctoral research project. As I mentioned to you, I'm a doctoral candidate in Adult Education with the College of Education, Michigan State University, USA. I'm interested in learning more about the ways instructors communicate with adult learners during the first few class meetings.

My major concern is that many well meaning and caring instructors are sometimes discouraged when their efforts to build a sound pedagogical relationship are not reciprocated. Instead, adult learners drop-out or conflicts occur.

Misunderstandings can easily occur in an adult education class that is often made up of people of different ages, experience, backgrounds, interests and even motives for attending the class. My research focuses on verbal communication patterns that assist instructors to be perceived as more helpful or well-intentioned by the adult learners in the class.

I request your permission to invite interested instructors at your (College) to assist me in my research.

1. HOW INTERESTED INSTRUCTORS COULD HELP

First, I would ask instructors for their permission to record either the first of second class meeting [using a small micro-cassette recorder].

<u>Second</u>, I would also ask the instructor to give me 5-10 minutes at the end of the lesson so as to give out a student response form.. This form requests students to share their "first impressions" of communication that took place during the lesson. The forms would be collected as students leave the classroom.

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2. HOW WILL THE FINDINGS OF THE STUDY BE USED ?

All recordings of the instructor, or the students responses will be kept strictly confidential. Neither the instructor, students or the institution (nature or geographic location) will be identified in any way in the study.

You, your staff, students and institution may be assured that the highest ethical and professional standards have been, and will continue to be followed throughout the study to safeguard the confidentiality and the anonimity of all participants.

3. WILL THERE BE ANY USEFUL FEEDBACK ?

By the end of term 3, 1981, I hope to have analysed my data and be able to share with the instructors a tentative summary of my findings.

I would be more than happy to sit down with individual instructors who participated and talk over their communication style, or, discuss the general aspects of my research into communication in adult education classes.

(Mame), I would be more than glad to share any of my expertise in adult education with your staff during an inservice session or in any other way you felt might be appropriate.

- Attached are copies of: 1. Letter of Introduction from Research Director, 2. Abstract of Research Study

 - 3. Schema used in the research study
 - 4. Student Response Form
 - 5. Professional Profile of myself and my wife (who will be assisting in data collection)

I trust this information will give you an accurate perspective on my research, and how the instructors at your centre might help. If you need any further information, please phone me at any time at home : (No.) or work: (No.)

Again, thank you for your courtesy and assistance.

Sincerely, JOHN BROWN-PARK

CORRESPONDENCE

(Address) (Date)

(Name and address of Regional Administrator)

Dear (Name of Regional Administrator)

I would like to confirm our telephone conversation on (Date) regarding my intention to carry out some research in the Evening Colleges in the (Name of Region)

As I mentioned on the phone, I'm a doctoral candidate in Adult Education with the College of Education. Michigan State University, USA. I am currently employed at the (Name of Institution) a lecturer in training of trainers and community education. From a research point of view I'm interested in learning more about the different ways instructors communicate with adult learners during the first few class meetings.

I have followed your suggestion of contacting individual Principals of Evening Colleges, outlining my research interest and asking their co-operation. So far I have contacted the Evening Colleges of (Name of Region)

I'm delighted with the courtesy and professionalism with which my request has been received, and the helpfulness of the Principals concerned.

Basically I have requested that interested instructors allow me to record their first or second class meeting. In addition I've asked that the instructor give me about 5-10 minutes at the end of the lesson to give out a short student response form. This form requests students to share their "first impressions" of some aspects of communication during the lesson.

All recordings of lessons and student responses will be confidential. The highest ethical and professional standards have been and will continue to be followed thoroughout the study to safeguard the anonimity and confidentiality of all institutions or participants in the study.

Attached for your information are copies of :i) Letter of Introduction from my Pesearch Eirector, ii) Abstract of the Study and iii) Student Response Form.

Thank you for your assistance and co-operation.

Yours Sincerely, John Brown-Parker APPENDIX S

APPENDIX S

CORRESPONDENCE TO PARTICIPANTS IN THE FIELD TEST

(Address) (Date)

Dear (Name of instructor)

re: Participation in Adult Education Research

Just a short note to thank you for allowing me to record your lesson. The quality of the recording was very good. My wife and I are now transcribing and typing up selected cassette recordings.

Please thank your class again for me. I really appreciated their cooperation and honest responses to the "First Impressions" questionnaire they completed at the end of the lesson.

By allowing me to record the communication that took place in your classroom, you have helped me to field test the instrumentation and coding system I designed for my research study.

Your assistance and cooperation has made a substantial contribution to the success of my overall research endeavour.

As soon as I complete the analysis of data and complete my study, I will send you a summary of my research findings.

To simply say thanks for helping me out, mv wife and I would like to invite you to our home for lunch on <u>Saturday</u>, <u>(Date)</u> at 1.00 p.m. After lunch, I'd be happy to explain more about my research study with you. If you are unable to attend, would you please let me know at one of the above telephone numbers.

Thankyou again. I trust you have an enjoyable and rewarding third term and look forward to seeing you soon.

Regards,

John Brown-Parker

CORRESPONDENCE

(Address) (Date)

(Name and address of College Administrator)

re: Participation in Adult Education Research Study

Dear (Name of College Administrator)

I wish to thank you, your staff and students for assisting in my field research in the design, development and field testing of a technique to measure an instructor's verbal management of intent.

The quality of cassette recordings made during the initial class sessions were very good. My wife and I are now transcribing and typing up selected recordings.

As soon as I complete the analysis of data and finalise my study, I will send you a summary of my research findings.

To thank your instructors for helping me out, I have invited them to our home for lunch on <u>Saturday</u>, (*Date*) at 1.00 p.m. Judi and I would be delighted if you would join us. After lunch, I would be happy to explain more about my research study with you and your staff in an informal "in-service" session.

For your information, I have attached copies of the letters of thanks written to:

- 1. All instructors who participated in the study.
- 2. (Regional Administrator)
- 3. (State Administrator)

Again, thankyou for your help. Your assistance and cooperation has made a substantial contribution to the success of my overall research endeavour. It has been a pleasure working with such a committed and caring group of adult education practitioners. I look forward to seeing you again at my home.

Regards,

John Brown-Parker

(Name and address of Regional Administrator)

(Address) (Date)

re: Adult Education Research Study in Evening Colleges in the (Name of Region)

Dear (Name)

Just a note to let you know that I have completed my field research in the Evening Colleges of (*Name of Region*)

I wish to thank you, your Evening College Principals and their staff for the assistance and cooperation shown towards me and my research team during the field study.

For your information, I have attached copies of the letters of thanks written to:

- 1. All instructors who participated in the study.
- 2. Principals of the Evening Colleges.
- 3. (State Administrator)

I must add that I was most impressed with the professionalism and commitment shown by (Names of College Administrators) towards improving the quality of Evening College programmes. Under the energetic leadership of such competent Principals, the future of the Evening College movement in the (Name of Region) appears most promising.

As soon as I complete my study, I will send you a summary of my research findings. I trust it may be of some interest in understanding more about how instructors tend to verbally manage their intent, and how some students perceive their instructor's initial success in establishing an adequate classroom rapport.

Again, thankyou. Your assistance has made a substantial contribution to the success of my overall research endeavour.

Sincerely,

John Brown-Parker

CORRESPONDENCE

CORRESPONDENCE

(Address) (Date)

(Name and address of State Administrator)

re: Adult Education Research in Evening Colleges in (Name of Kegion)

Dear (Name)

Just a note to let you know that I have completed my field study in the Evening Colleges of (Names of Regions) Judi and I are now in the process of transcribing and typing up selected cassette recordings of adult education classes. My research team of quadriplegics will then code the transcripts using the category system I designed for the study, in readiness for computer analysis.

(*Name*), I really wish to thank you for the initial help you gave me in gaining access to a suitable population for my research. It is greatly appreciated.

I did especially want to mention that I have been delighted, in fact impressed, by the professionalism and courtesy that has been extended to me by (Names of College Administrators)

, and the helpfulness of all Principals and staff participating in the study.

Under the energetic leadership and commitment of (Names)

. the ability of the Evening College movement in the (Name of Region) to meet the needs of its adult clienteic appears most encouraging.

In an attempt to reciprocate for the cooperation given to me and my research team by individual instructors, Judi and I have:

1. Invited participating instructors of each College to a luncheon at our home in late November. At that time, I hope to explain more about my research study in an informal "in-service" session. Taken part as facilitators in the recent In-service Training weekend for Evening College instructors at (Name) arranged by (Name) of the (Name of Region)

For your information, I have attached copies of the letters of thanks written to:

- 1. All instructors who participated in the study.
- 2. Principals of the Evening Colleges.
- 3. (Regional Administrator)

Again (*Name*) thankyou for your advice and help. It has been a pleasure working with and learning from such a committed and caring group of adult education practitioners.

Regards,

John Brown-Parker

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APPENDIX T

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APPENDIX T

MEAN SCORES OF INSTRUCTOR EFFECTIVENESS IN ESTABLLISHING INITIAL RAPPORT

A learner response form, developed and refined during the pilot test, served as a criterion measure to identify from the thirty-two instructors sampled, the five instructors 'most effective' and the five instructors 'least effective' in establishing initial rapport with their learners.

Details of the mean scores for each of the thirty-two instructors sampled in the field test are displayed in the table on the next page and include the scores for the five 'most effective' and the five 'least effective' at each extreme of the distribution. Within the possible range of scores from 200 (ideal) to 40 (minimum) for the learner response form, the thirty-two instructors' mean scores ranged from 160.92 for the lowest to 195 for the highest. S = 8.34 and X =183.4.

RANK	TD 1								
	ID I	ID 2	x	N	RANK	ID 1	ID 2	x	N
÷ İr	22		195.0	:6	17	18	-	184.53	19
2	* 13	-	193.4	5	18	20	-	184.0	8
3.	23	- 5`	193.11	9	19	25	-	184.0	12
4	14	2	192.6	10	20	30	-	183.14	7
5	1	1	192.0	7	21	2	-	181.2	5
6.	19	- 3	191.8	10	22	27	-	181.0	7
7	28	-	191.71	7	23	3	-	180.0	6
8	10	-	189.33	12	24	15	-	178.0	7
9	17	-	188.86	7	25	31	-	177.83	12
10	5	-	188.5	8	26	21	-	177.53	17
11	29	-	188.3	6	27	26	-	173.67	6
12	24	-	188.2	10	28	6	6	173.0	6
13	* 4	-	188.0	7	29	12	8	172.0	9
14	7	-	187.43	14	30	17	9	169.71	7
15	16	-	185.71	7	31	11	7	169.14	14
16	9	-	185.6	15	32	32	10	160.92	13
EV. E	न हर	ive Ima	st offer	+ :				ΣN	295

MEAN SCORES OF INSTRUCTOR EFFECTIVENESS IN ESTABLISHING RAPPORT AS RATED IN LEARNER RESPONSE FORMS

ID 1 Instructor's initial identification num data analysis N Number of students in each class * Tape unclear for transcribing Range of scores = 34.08 s = 8.3427 X = 183.405 APPENDIX U

APPENDIX U

UNITIZING AND CATEGORIZING RELIABILITY COEFFICENTS OBTAINED BY CODING TEAM

The field test transcripts were independently unitized and categorized by the researcher and three teams of coders. Acceptable intercoder coefficients between coders were set at the .95 level when computing unitizing reliability, and at the .80 level when computing categorizing reliability. Reliability coefficients obtained are graphically displayed in the figure on the next page.

Unitizing and categorizing reliability coefficients above .80 were established for the initial 400 utterances of the first three transcripts coded by each team. Acceptable levels above .95 were also achieved for unitizing these transcripts.

Random selections of 160 utterances in each of the remaining seven transcripts were checked to ensure coding standards were maintained. As shown in this figure, acceptable levels for unitizing and categorizing were achieved by teams A and B throughout the field test.

Unacceptable intercoder reliability coefficients between team C and the researcher were obtained for two transcripts. The transcripts were recoded by an independent coding team and their results compared with those of the researcher and team C. Acceptable reliability coefficients were established with the researcher and substantial disagreement was found with team C. It was found that most errors made by team C occurred when unitizing long sequences of instructor explanations (category 7) and clarifications (category 8). When designating categories to units of analysis, team C continually confused the categories 6 (Suggesting), or 7 (Explaining), or 8 (Clarifying) with one another.



UNITIZING AND CATEGORIZING RELIABILITY COEFFICIENTS OBTAINED BY CODING TEAM

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