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# The influence of setting and interlocutor on the ability of adult retarded speakers to exhibit control in an instructional context

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# THE INFLUENCE OF SETTING AND INTERLOCUTOR ON THE ABILITY OF ADULT RETARDED SPEAKERS TO EXHIBIT CONTROL IN AN INSTRUCTIONAL CONTEXT

by

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## ABSTRACT

THE INFLUENCE OF SETTING AND INTERLOCUTOR
ON THE ABILITY OF ADULT RETARDED SPEAKERS
TO EXHIBIT CONTROL IN AN INSTRUCTIONAL CONTEXT

Robert A. Domingo

Advisor: Professor Loraine K. Obler

This descriptive-analytic study examined the ability of adults with mental retardation and their nonretarded and retarded interactants to exhibit "control" in both formal and informal instructional settings within an adult day treatment facility. The analysis made use of verbal summonses, or calls to action, that were described as either dominant or submissive bids for relationships offered (Bedrosian & Prutting, 1978). ANOVA findings indicated that retarded speakers did not exercise any more control with non-peers in either formal or informal instructional settings; nor did they exercise significantly more control with peers informally in comparison to their performance with non-peers informally. However, retarded persons were noted to be proportionately more dominant with peers during formal lessons than they were with peers in an informal setting; and were likewise significantly more dominant with peers in a formal interaction in comparison to their perfor-

mance with non-peers in a formal instructional setting. Qualitatively, retarded speakers employed a higher incidence of implicit/suggestive directions, as well as higher incidences of initiatory direction-giving and nontask-related talk, in informal settings with both peer and non-peer interactants. Nonretarded speakers maintained a dominant position over retarded subjects in both formal and informal instructional settings, though qualitative analyses indicated that they became more facilitative and less initiatory when the instructional interaction with retarded subjects was intended to be egalitarian. Findings were equivocal in support of either the Deficit or Competence Models of communicative abilities of retarded speakers. While significant findings of retarded speaker controlling capabilities were not consistently attained across setting and role boundaries, qualitative treatments of the client database suggested that mildly and moderately retarded speakers had the wherewithal to display the controlling bids of interest.

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## I. INTRODUCTION

The communicative abilities of adults with mental retardation have long been the subject of considerable investigation. While early research in the area of their speech and language (Blount, 1968; Schiefelbusch, 1972) focused more on characterizing phonological and grammatical aspects of the speech of retarded persons, recently this approach has been replaced by a more "functional" orientation. Functional communication skills are those that are useful to adults with retardation in terms of meeting their environmental and communicative needs (Bedrosian, 1988).

This change in research orientation grew naturally out of an awareness that knowledge of grammar is only part of what normal and retarded speakers need to know about their native language; that in order to use language successfully and appropriately for communicative purposes, speakers must also possess knowledge of a system of rules and conventions for using language in various settings and with different interlocutors. The new research, developed within the sociolinguistic framework, emphasizes the importance of examining interactive abilities and social skills within naturally-occurring contexts (Linder, 1978 a,b; Kernan & Sabsay, 1982, 1987; Turner, 1984; Anderson-Levitt & Platt, 1984; Platt, 1985; Graffam, 1985).

An examination of the literature on the communicative

competence of adult retarded speakers in natural contexts reveals a dichotomous research orientation. There are those who claim that speakers with retardation are incapable of utilizing a linguistic code commensurate with the code employed by nonretarded speakers, a DEFICIT orientation that focuses on "other-regulatory" strategies in the accomplishment of conversational competence (Linder, 1978b; Sabsay & Kernan, 1983). Such strategies stress the role of the nonretarded interlocutor in controlling highly structured interactions and the compliant passivity of retarded speakers to allow such regulatory routines. The alternate orietation views the interaction more as a reflection of the social roles being played out between participants in a verbal exchange, a COMPETENCE orientation that places more emphasis on "self-regulatory" strategies (Bedrosian & Prutting, 1978; Anderson-Levitt & Platt, 1984). Such strategies emphasize the ability of retarded speakers to display communicative competence while exerting some measure of control in less structured interactions with peers and nonretarded interlocutors.

The following studies of the language of adult retarded speakers will be described from both the Deficit and Competence Model perspectives, in order to determine how retarded persons in question exhibit communicative competence across interactions and with different interlocutors.

## II. COMMUNICATIVE DEFICIENCIES : THE DEFICIT MODEL

Historically, a considerable portion of the early research conducted under the structural framework of speech and language of adults with retardation was based largely on the Deficit Model of verbal behavior. Studies guided by such an orientation showed that "the quality of language produced by the retarded was consistently inferior to that of the nonretarded" (Schiefelbusch, Copeland & Smith, 1967). Linder (1978 a) summarized some of the linguistic characteristics attributed to speakers with retardation from the early studies, and provided the following inventory of structural deficits, including: restricted vocabularies; syntax below age expectancy; relatively shorter sentence length; relatively fewer propositional abstractions; and frequent incidences of sacrificing conventional meaning for some "inner, private, individual" meaning. Gunzberg (1968), in considering these deficiencies, deemed that even the "highest functioning" individual with retardation was "extremely impaired" or "woefully inadequate" in comparison to nonretarded speakers.

The bias of employing the Deficit Model framework continued into later investigations of various functional aspects of retarded speakers' communicative abilities. These were studies of structured interactions with nonretarded adults who were predisposed towards exerting more control in conversational encounters with retarded speakers. Sabsay & Kernan (1983) concluded that speakers with

retardation exhibited pervasive deficiencies of COMMUNICATIVE DESIGN, or the ability to take into account the informational needs of one's listeners in order to appropriately construct a meaningful dialogue with them. They reported that mildly and moderately retarded speakers, lacking appropriate communicative design strategies, at times failed to take aspects of the total speech situation into account, such as linguistic, social and interpersonal settings. In so doing, these speakers failed to recognize relevant aspects of given speech situations and did not utilize the rules of speaking that applied to those situations. Separate analyses indicated that at times these subjects demonstrated referencing problems by the use of "he/she" on first mention (Kernan & Sabsay, 1987). Speakers also showed lack of communicative design when asked to give directions to nonretarded interlocutors in order to have that person locate an unknown group home residence or employment facility location (Kernan & Sabsay, 1984).

The Deficit Model orientation also led Kernan and Sabsay (1982) to view individuals with retardation as possessing disorganized story-telling abilities. Speakers either started to say something then changed their minds about the form of the narrative, starting over again, or they changed what they initially wished to talk about rather than rephrase the original narrative. The authors noted a lack of cohesion between sentences and inappropriate use of cohesive devices that indicated difficulty on the part of the retarded speaker to take into account the

informational needs of their nonretarded interlocutors.

Despite noting that retarded speakers have problems with communicative design, Sabsay & Kernan (1983) observed an existent underlying ability to effectively perform communicative design that was sometimes exercised and sometimes not. Thus, the ability to recognize what is "in the mind" of one's audience in an independent and self-reliant fashion would seem to exist but does not always get activated by the retarded speakers themselves. The authors attempted a partial explanation of this by suggesting the need that adults with retardation might have for EXTERNAL GUIDANCE in the accessing of requisite cognitive skills necessary for effectively performing communicative tasks. Sabsay & Kernan suggest that this outside guidance is manifested in the form of some "other" nonretarded interlocutor who helps to regulate the construction and flow of information in structured speaking contexts. Thus, retarded speakers are viewed as deficient in the area of self-regulatory abilities in the construction of dialogues.

While it is not clear why mildly and moderately retarded speakers rely more heavily on other-regulation, Sabsay & Kernan (1983) point out the general ease with which an interaction can be taken over and controlled by one of its participants. They cited several studies (Sabsay, 1979; Marshall, Hegrenes & Goldstein, 1973; Buium, Rynders & Turnure, 1974) that demonstrated how nonretarded interlocutors directed and controlled the form and content of conversations held with both nonrelated adults with

Down's Syndrome and mentally retarded offspring. Sabsay & Kernan state: "It is easy to imagine a lifetime of linguistic experience in which a retarded individual has had most of the verbal interaction he has engaged in controlled and directed by others. It should not be surprising that the result of such experience would be the failure to develop the ability to self-regulate, and a reliance on the regulation of others."

Edgerton (1967) described this long-term effect of other-control as LEARNED HELPLESSNESS where retarded individuals are made to develop into dependent and unquestioning members of society after prolonged exposure to other-regulatory routines. In examining the long-term effects of deinstitutionalization of individuals from state-run facilities, he found that retarded persons often managed their verbal routines by relying on various other-regulatory (or what he called compensatory) devices in interactions with nonretarded interlocutors. Using "often ingenious and always strenuous efforts" to veil the stigma of perceived incompetence, newly-released adults with retardation were noted to say as little as possible in order to control the degree of possible misunderstandings in conversations. In his longitudinal study, the "Cloak of Competence", Edgerton showed how retarded people depended on other-regulatory routines in conversations and mimicked things they considered "normal", in order to mask their own internalized feelings of inequality.

Warne & Bedrosian (1986) also observed this passive

approach to controlling conversations in retarded speakers who did not question the appropriateness of topic changes introduced by nonretarded interlocutors during a popcorn-popping learning activity. They suggested that a possible reluctance on the part of the retarded speakers to exercise greater self-regulation and control with "higher status" authority figures was due to their perception that questioning would hold them accountable for their statements and thus increase the possibility for later misunderstandings in conversations.

Linder (1978 b) discussed retarded speaker passivity and dependence on other-regulation from the point of view of the nonretarded interlocutor. He cited certain a priori assumptions that nonretarded interviewers held as they entered interactions with persons of perceived lower status, reporting on their sympathetic need to "manage" conversations with the retarded in order to minimize perceived differences. Nonretarded interviewers demonstrated a preference for controlling conversations in order to avoid possible breakdowns in communication, based on an assumption that the retarded interviewee would not be able to correct misunderstandings, or trouble, that might arise. The author defined TROUBLE as "any feature in a conversational interaction perceived by its participants as actually or potentially confusing, compromising, or anxiety-producing". According to Linder, it was both unfortunate and ironic that nonretarded speakers chose to discuss mundane topics with little relative interest to either party,

used repetitive question reformulations and employed simple syntactic constructions, in that it resulted in the very thing each side sought to avoid, namely conversations that highlighted differences between retarded and nonretarded people.

To summarize, studies of functional communication skills conducted under the Deficit Model contend for the most part that retarded individuals are incompetent interactants, not always capable of exerting control in their interactions but relying on those deemed more competent to expedite the interaction (Kernan & Sabsay, 1983). These results obtained from Deficit Model research investigations have for the most part been determined from structured analyses where the retarded adult has been cast in the inherently supporting role of either learner in a task (Warne & Bedrosian, 1986); respondent to questions in an interview format (Linder, 1978 b); or as supplier of requested information in structured speaking situations (Kernan & Sabsay, 1982). An integral component of this Deficit Model is the additional casting of the nonretarded interlocutor in the lead role as initiator and/or facilitator of verbal interactions between him/herself and a less competent retarded partner. This orientation coincides with Edgerton's (1967) notion of the BENEVOLENT CONSPIRACY, in which it is not the retarded individual alone who constantly strives to disguise his/her incompetence, but also those professional persons with whom the retarded individual interacts that together seek to avoid "uncomfortable

moments" (Erickson & Shultz, 1982) in conversations. Given that perspective, it is not surprising to find the proponents of the Deficit Model viewing retarded speakers as being deficient in the area of communicative design, or being able to independently take into account the informational needs of their speakers, and thus having to rely more on other-regulatory strategies in the accessing of requisite cognitive skills needed for performing communicative tasks.

## III. COMMUNICATIVE SKILLS : A DISPLAY OF COMPETENCE

A second approach to viewing communicative skills, the COMPETENCE MODEL, contends that retarded speakers can exhibit those communicative design strategies that reflect informed knowledge of the other's thoughts, without the intervention of some well-meaning, nonretarded interlocutor. Studies examining the communicative competence of persons with mental retardation span a broad range of functional conversational domains in less structured speaking situations involving both peer and non-peer participants. In the studies which follow, findings will be discussed with consideration given to the issues of control and the degree of communicative competence attributed to individual members in the dialogue.

In one study, four aspects of control along DOMINANT-SUBMISSIVE lines were investigated. Bedrosian & Prutting (1978) sought to investigate these dimensions by looking at

the communicative interactions of four adults with moderate to severe retardation across four conversational settings: with a speech-language pathologist (SLP); with parents; with peers; and with a normally intelligent but younger-aged child. Both dominance and submission were defined by types of behavior exhibited in the style of speaker interactions, as reflected through types of bids made (questions and commands). Dominant bids included requests for action/attention, based on the rationale that the speaker assumed he/she had the power to make such a demand; requests for information/opinion; or commands. Submissive bids included requests for permission, based on the rationale that asking for permission is an admission of one's lack of power in the interaction, implying the other's authority; and requests for information/opinion in which the speaker is in need of information and thus dependent on the responder for it.

Bedrosian & Prutting fashioned their analysis after the works of Mishler (1975) involving question-sustained discourse, and Folger & Puck (1976) who used a question approach to coding relational communication. Mishler (1975) demonstrated that a speaker could control a conversation by successive questioning, designated as CHAINING, and could regain control of a conversation by responding to another's question with a question, called ARCHING. The relationship between participants could therefore be defined along dimensions of power and authority, according to the patterning of questions. Folger & Puck (1976), on the other hand, de-

fined control according to types of response (acceptance, rejection, evasion) that followed particular question styles (dominant or submissive).

Provided with both orientations, Bedrosian & Prutting determined that speakers could express control in four different ways: 1) by having the majority of their bids accepted by the respondent; 2) by not allowing a listener to respond to a bid via use of multiuttered questions or multiuttered commands; 3) by use of arching; and 4) by use of chaining. They determined that the adult subjects were capable of expressing the same types of control as normal adult speakers, though to a lesser degree, and that the types of control exhibited by each adult with mental retardation varied as a function of the particular conversational setting. One subject expressed control by having the majority of his bids accepted in parental and child interactions. Another subject exhibited this type of control (acceptance of bids) with all interlocutors except his peers, while a different subject displayed this control mechanism with all participants but her mother. The final subject displayed control via acceptance of bids in every interaction.

The second type of control, not allowing the listener to respond to a bid, was exhibited by one subject with all participants but the SLP; and by a different subject when interacting with his SLP, parents and peers. Another subject expressed this control mechanism in interactions with her mother, while the final subject, again, was able to

exercise this type of control with all participants.

All but one of the subjects expressed control via arching: one subject with the SLP; one with his parents and child; and one with her peers and child. Only one subject did not express control via chaining, while the remaining subjects demonstrated chaining in two interactions each: two subjects used chaining with their parents and the child; and one used chaining with her peers and the child.

Regarding the style of interaction exhibited by the adult retarded speakers via use of dominant and submissive bids for control, Bedrosian & Prutting found that three of the four subjects did not hold a dominant position in any of the conversational settings, while the fourth subject exhibited dominance when interacting with her peers and with the child. While one subject made more bids than the child, he was not considered dominant since his dominant bids were equal in number to his submissive bids. Similarly, another subject made more bids than his peers, but was not deemed dominant since all his bids were judged as submissive. The final subject offered more bids to his peers than to the SLP and child, but was judged as submissive overall.

Interestingly, results of this study indicated that a speaker need not be in a dominant position in order to be simultaneously judged as holding control of the interaction. An account can thus be made of a speaker being submissive via use of submissive bids, but still being in control of the relationship by chaining or arching of his/her

questions. Bedrosian & Prutting pointed out the utility of adding the Folger & Puck analysis to the Mishler analysis in order to create a more sensitive instrument for examining types of bids and responses involved in a conversation.

In a different investigative vein of the expressive FUNCTIONS OF COMMUNICATION, Anderson-Levitt & Platt (1984) looked at language use among mildly and moderately retarded adult peers across two recurrent social settings: dinnertime at a small board and care facility, and weekly discussion groups for clients at a sheltered workshop. Results demonstrated that the conversational interactions for the two settings differed in both content and structure, even though both situations involved primarily peer interaction. This difference in conversational form and function was linked to perceived differences in the way each social situation was defined and structured by the participants.

Within the Anderson-Levitt & Platt group home setting, dinnertime was viewed as an arena where members could display some degree of control over their own affairs, such as the ability to keep track of one's own schedule. The majority of speech moves found in this setting had to do with making announcements about one's chores, followed by challenges as to the factuality of announcements made by others in order to display more individual competence. Veteran group home members more familiar with the routine typically countered challenges with confirmations ("I know that"), demonstrating to each other that mental records were kept not only of their own, but other residents'

household responsibilities. Newer residents less familiar with the day to day running of the house merely responded to other residents' displays of dominance more submissively by way of acknowledgements ("Oh, I see").

Participants of the Anderson-Levitt & Platt group meetings consisted of some of the same members involved in the dinnertime context, as well as additional client members. Minimally supervised meetings became a temporary "arena of normalcy", where they were given primary control for working out presented problems. The clients were thus provided with "welcome relief from a primarily regulated, monitored and dependent existence." The majority of speech acts found within this second setting centered around stating problems, attributing blame and occasionally contesting blame through use of challenges.

Group home residents in the dinnertime context demonstrated different individual strategies for controlling conversational interactions from those of clients involved in the group meeting context. Anderson-Levitt & Platt felt this to be based on the relative degree of seniority each person individually possessed in the residential hierarchy, where the more senior members used their language to define who they were within the "pecking order", thus allowing them to display a more superior attitude towards newer group home members. In contrast, "allied" retarded speakers of the sheltered workshop group sessions were noted to band together when blames or challenges were made in order to resolve problematic issues, displaying intra-group solidar-

ity or collective control of the interaction. In each of the peer interactional settings, adult retarded speakers were able to demonstrate some measure of control in the group dynamic and displayed communicative competence.

In another study of the functional uses of communication, Abbeduto & Rosenberg (1980) examined triadic peer interactions during mealtime conversations. They found that the adults with mild mental retardation were capable of maintaining and controlling the interaction by employing a variety of communicative functions when either initiating or responding to a conversational move. Conversational control in this case was mutually negotiated and ratified by the participant members in the exchange, rather than attributed to one dominant interactant. Results indicated that adjacency pairs were typically initiated by assertions or questions, while uptake turns were comprised of acknowledgements, agreements-disagreements and requests for either clarification or more information. All subjects in the study produced requests for clarification or more information, indicating that at some point in the conversation, each person attempted to learn more from fellow participants. They exerted control in the interaction by attempting to get a speaker to repeat what they did not understand or to supply more information than was initially made available. The authors found that communicative failures were no more likely to occur on the occasion of a request for clarification or request for more information than on other question types. These results show that not only were the

mildly retarded adults capable of signalling distress, but they could also appropriately respond to such requests. In addition, this study revealed an independent ability at utilizing conversational control in the form of clarification statements, though Abbeduto & Rosenberg were not primarily interested in the issue of "control" in an interaction. Such findings bear similarity to the Bedrosian & Prutting (1978) findings stated previously, where question usage in an interaction serves as a measure of either dominant or submissive control, depending on the intent of the question posed.

Owings & McManus (1980) investigated the effect of different interlocutors on the ability of a 28-year-old retarded speaker to express functions across three speaking contexts (in monologues, in peer and in counselor interactions). Results indicated that the subject was capable of maintaining interactions by expressing each of the functions of questioning, information-giving, information-giving to self, commanding, criticizing, praising, describing, imitating and repeating, and that the frequency of usage of each varied as a function of the speaking situation. In the monologue context, the most frequently noted function involved giving information to self, while in peer interactions, questions and imitations were most often noted. In comparison, information-giving was most frequently observed in counselor interactions.

Assuming that the asking of questions and the giving of information are two possible ways in which a speaker either

dominantly or submissively maintains a dialogic interaction (as determined by Bedrosian & Prutting (1978); Folger & Puck (1976); and Mishler (1975)), one might interpret the relative frequency of question-asking as a display of dominance by the retarded subject in his attempt to gain conversational control during peer exchanges. Conversely, the relatively higher incidence of information-giving in counselor interactions might be interpreted as a relinquishing of control to a more dominant non-peer interactant. However Owings & McManus did not explicitly study this issue of control. One might posit that the higher incidence of information-giving with the counselor and question-asking with the peer were reflections of types of control being employed by the participants as they attempted to establish and maintain their social identities, either as persons in positions of authority, marked by (an inferred) use of information-requests that would elicit the information-giving function in subject-counselor dyads; or by the use of questions in peer dyads to mark mutually negotiated maneuverings of control within a social group.

Another area of research conducted under the Competence Model includes the ability to initiate CONVERSATIONAL TOPIC. Within this area, Bedrosian (1979), examining the topical performance of one moderately and one severely retarded adult in different interlocutor interactions (peers, parents and a normal young child), found that the communicative intentions of topic initiations varied as a function of the conversational interactant. Some initiations made

with peers (e.g. fantasy and name-calling) were not noted in topic initiations made with parents, reflecting what the author called "appropriate adherence" to discourse rules, or knowing how and what to say to whom in given situations. Most topic initiations made with parents involved discussions of the here and now, with intent primarily consisting of informatives, while more requests were used to initiate topics with peers and the child.

Since this study did not include a similar type of analysis of control that the author utilized in an earlier piece of research (Bedrosian & Prutting, 1978), it could not be determined if the subjects of this later study displayed similar measures of control along aforementioned dominant-submissive lines. An intuitive guess would be that they could, regardless of how they came to view themselves in the interactions, either as kindred or obligatory members.

One additional area from the competency literature looked at the CONVERSATIONAL TURN-TAKING abilities of adults with mental retardation. Anderson-Levitt & Platt (1984) looked at turn-taking strategies across their different speaking contexts, previously described. In their dinnertime context, turn overlaps were noted in the sample as group home residents vied for attention and control of the interaction, usually in order to challenge the factuality of another clients' statements. In contrast, the ability to take turns in the group meeting context was viewed more as a pre-arranged situation rather than as a spontaneously

occurring conversation, therefore not all turns were allocated through negotiation in the course of the meeting. Rather, a number of systems for controlling the interaction and gaining the floor applied, such as clients "reserving" a future turn to talk; clients "pre-arranging" among themselves who would take turns to talk; use of "announcements" to gain the conversational floor; or gaining entrance to talk in a manner consistent with that found in normal conversations, i.e., by stepping in at the appropriate juncture while making reference to the prior speaker's topic. Length of turn during group meetings varied from a single monosyllable (e.g. "yeah") to complete control of the floor for ten or even twenty "filibustering" minutes.

It was thus observed by the authors that adults with mental retardation were capable of taking turns and gaining control in each of the different settings in a variety of interesting and effective ways. In the dinnertime setting, control was generally attributed to some higher functioning (and thus "higher status") member of the population, while in the group meeting situation, control was viewed more as a function of the group dynamic. This differentiation in how control was obtained by individuals in the two settings was considered by this investigator to be a reflection of the position each person felt they occupied in their given situation.

One conclusion that can be drawn from the competence-based orientation to research is that adults with mental retardation are able to exercise control in various

situations linguistically, and that their skill in doing so includes the self-reliant ability to alter their performance depending upon the demands and constraints of the context in which they are involved. Both conversational setting and interlocutor role have an effect on how adults with mental retardation display measures of control in an interaction.

Based on the results obtained from both the Deficit and Competence Models, it would appear that no clear resolution is forthcoming regarding the issue of whether adults with mental retardation are capable of exhibiting control in an interaction. For the most part, studies conducted under the deficit orientation consist of highly structured interactions involving mostly non-peer participants. In such studies, the combination of these variables seem to influence how members conduct themselves in such a way as to depict retarded members as requiring the aid and assistance of the "significant other" to expedite the interaction. Such a research orientation that unconsciously invokes the role of the nonretarded speaker as a self-perceived initiator and/or facilitator of the formal task, while downplaying the capacity of the retarded individual to function independently in that setting (e.g. Linder, 1978 b), would inevitably conclude that retarded adults demonstrate communicative deficiencies that would require other-regulatory guidance.

Conversely, studies conducted under the competence orientation, that consist mainly of egalitarian interac-

tions involving both peer and non-peer participants, determine that retarded adults can display measures of control in the various areas of linguistic competence investigated, though the degree to which that control is exercised depends primarily on the role of the interlocutor, since the settings remain informal across both peer and non-peer groupings. Such a research perspective that emphasizes the ability of retarded speakers to display degrees of interactional control in peer and non-peer egalitarian settings (e.g. Bedrosian & Prutting, 1978), would conclude that the speakers in question possess adequate communicative design and self-regulatory capabilities, based on role and setting conditions.

It could well be that competence, viewed as a measure of self-reliant control that one is able to exercise in a communicative interaction, may be different from one condition to the next, given the circumstances of interlocutor role and setting that make up that condition. The interplay of setting and role relation are vital to understanding what actually takes place when retarded speakers interact with others.

At the same time, the fact that neither research orientation more fully examines the role of the nonretarded interlocutor and the influence that his/her language has in influencing the ability of the retarded speaker to exert control linguistically is considered problematic by this investigator. This method for conducting research is considered somewhat one-sided in that it fails to take into

account the contribution of the nonretarded speaker before drawing conclusions about the communicative competence of the retarded subject in question.

In the midst of the debate over whether adults with mental retardation are communicatively competent or deficient in different settings, little if any attempt has been made to study the INSTRUCTIONAL CONTEXT, a frequently recurring context in which individuals with retardation can be found interacting with others. While previously cited studies provide insights into retarded speakers' abilities across structured and more informal speaking situations, and emphasize a description of the language of retarded subjects while keeping a description of their interlocutors' language to a minimum, few studies exist which view both retarded and nonretarded speaker performances in a learning context. A need to conduct further research in an instructional context is warranted, that accounts not only for the linguistic behaviors exhibited by retarded subjects, but also the environmental and role influences of retarded and nonretarded interlocutors in different instructional settings.

## IV. THE INSTRUCTIONAL CONTEXT

The work of several mainstream investigators, not primarily involved with the retardation issue but interested in the "language of schooling", will be provided in order to frame out what is currently known about instruc-

tional discourse. The influence of both teacher and learner in the interaction will be considered, so that a determination can be made of how instructional discourse is constituted between parties and how control in the interaction is mutually attributed by the participants involved. Provided with this background, an ethnographic description of an adult day treatment program for retarded persons will be provided as an example of an instructional setting where the "language of schooling" takes place.

Duchan (1989) reviews a literature on LESSONS, or events that typically occur in classrooms. According to this literature, the language of a lesson is constrained by the setting in which it occurs and so comes to possess its own set of identifying criteria that serves to distinguish it from patterns that exist in more egalitarian instructional interactions, such as free time or sharing time. These criteria include:

1) teacher-initiated directives ("OK, we can begin");

2) turn-taking routines (round robin; answering in unison; bidding for next turn; teacher nominations; teacher-student-teacher-next student);

3) teacher-controlled exchange structures (initiation-reply-evaluation); and

4) regulatory language (getting ready; keeping quiet; taking turns; doing work; staying seated).

Blank & Milewski (1981) also identify regulatory controls that educators exercise during instruction and describe a model of teaching discourse based on the concept of CONTROLLED COMPLEXITY. Controlled complexity is defined

as the systematic regulation of adult-child sequences in which the adult teacher simplifies or reformulates content to reduce the magnitude of mismatch between the child's conceptual resources and the semantic complexity of question content. These simplification sequences are activated when the child fails to supply the specific information being requested (e.g. child's use of over- or under-extending referent labels based on a semantic feature analysis). These sequences are described as a set of instructional principles used by the teacher and taken up by the child as a strategy for problem solving that the child can internalize and apply to other relevant situations.

This notion of controlled complexity can be likened to the metaphorical term SCAFFOLDING, first introduced by Bruner (1983) and later detailed in Cazden (1988). According to this educational framework, a child involved in the learning process does what he/she can while the adult does the rest. The child's practice with the target concept occurs in the context of a full performance with the adult's help gradually being withdrawn as the child's competence grows. Palincsar (1986), through a series of studies designed to explore the role of dialogue in providing scaffolding instruction, determined that teachers initially provide explanation coupled with modelling, then fade out the modelling and function more as coaches to provide corrective feedback and encouragement; to promote self-evaluation; and to reintroduce explanation and modelling as appropriate.

These orientations obtain support from Agar's (1985) description of "institutional discourse", or the non-egalitarian type of discourse that results when a member of society, operating in a client framework, makes contact with a known representative of one of that society's recognized institutions, operating in an institutional frame. While Agar's socio-political description of what constitutes institutional discourse is derived from courtroom and medical interview data, it is easy to make comparisons to discourse located in a classroom setting, given the nature of the divergent role relationships exhibited by each of the members of the instructional dyad (i.e. teacher and student).

According to Agar, institutional discourse must accomplish three things. First, the institutional representative (i.e. teacher) DIAGNOSES the client (i.e. student), in terms of a limited set of ways that the institution (i.e. school) has for describing people, their problems and possible solutions. These ways are called the institutional frames. Clients (students), on the other hand, come to the encounter with a variety of ways of thinking about themselves, their problems, and the institution's relationship to them, i.e. their own client frames. Diagnosis can be thought of as the process through which the institutional representative fits the client frame to the institutional frame. Secondly, the institution provides DIRECTIVES (i.e. instructions) that dictate what the client must do to rectify identified problems. Finally, the institution

provides a REPORT (i.e. individualized educational plan, or IEP), usually directed to other institutional representatives and not necessarily in the presence of the client, which summarizes the institution's findings concerning that client.

Hodge & Kress (1988) present another institutional model and speak in terms of the "ideological complex" as a "functionally related set of contradictory versions of the world, coercively imposed by one social group on another on behalf of its own distinctive interests, or subversively offered by another social group in attempts at resistance in its own interests." Thus the ideological complex can be said to represent the SOCIAL ORDER as simultaneously serving the interests of both dominant and subordinate parties, a view that remains consistent with how instructional contexts are arranged between instructor and learner.

Provided with these structural frames for viewing contextually-bound interactions between speakers, Cazden (1988) acknowledges that the linguistic units of instructional discourse are of interest themselves "only insofar as how through them (one) can gain insight into the social events of the classroom and thereby into the understandings which students achieve". She discusses three features of classroom life, termed the LANGUAGE OF CURRICULUM, the LANGUAGE OF CONTROL, and the LANGUAGE OF PERSONAL IDENTITY, which collectively make up the core of all categorizations of classroom language function. According to Cazden, language of curriculum is the medium by which much teaching

takes place, and in which students demonstrate to teachers much of what they have learned. Language of control occurs in instruction when one person, the teacher, takes responsibility for controlling talk that occurs while class is officially is session, both positively and negatively, to either enhance or avoid particular verbal interchanges. Finally, language of personal identity accounts for cultural and/or linguistic differences that may occur between speakers in the classroom setting. While these functions of classroom discourse are distinguishable, an individual utterance can simultaneously be viewed as "multifunctional" in that it can be traced to either curriculum, control or personal identity functional sources (Cazden, 1988).

In each of the instructional frames reviewed, the issue of "control" is emphasized; either how control is mutually attributed to an individual in an "authority" position and then gradually relinquished as the learner in a task becomes better able to demonstrate independence with the task to be learned (Blank & Milewski, 1981; Cazden, 1988; Palincsar, 1986); or how control is a non-negotiable entity between institutional classes in the social order (Agar, 1985; Hodge & Kress, 1988).

## V. THE INFLUENCE OF ROLE RELATIONS

This issue of control could not possibly be analyzed or discussed without the notion of ROLE RELATIONSHIP also being factored into the equation. From the instructional

frames just reviewed, it is noted how each author talks about "teachers" and "students" and how those individuals fulfill certain requirements about how their "roles" in the interaction should be properly played out. Blank & Milewski (1981) and Palincsar (1986) discuss notions of controlled complexity, or scaffolding, and determine that teachers will lessen in their roles as "facilitators" in an interaction as students gain in their roles as "more informed" learners. Cazden (1988) also observes that teachers will employ these different speaking approaches with students, as well as use different styles of speaking with other teachers or with parents, and determines that "variations in ways of speaking are a universal fact of social life".

Linder (1978 b), speaking from the Deficit Model orientation, discusses a priori biases that nonretarded speakers employ in approaching interactions with those deemed less competent, and determines that these speakers will assume a more facilitative role with retarded individuals to guide the conversational exchange. At the same time, Edgerton (1967) discusses the effect of learned helplessness and how it contributes to the formation of a "subordinate" role model in the minds of retarded individuals who use coping strategies to mask their own feelings of perceived lower status in comparison to others.

Proponents of the Competence Model orientation also discuss the effect of "role" in eliciting greater or lesser measures of control in interactions. Bedrosian & Prutting (1978) speak of the roles of various interlocutors (SLP's,

parents, peers, nonretarded children) in affecting how adult retarded speakers obtain control. Anderson-Levitt & Platt (1984) determine that certain retarded individuals will employ different role relationships with other retarded persons, either as "higher status" or "equal status" members, depending on the particular setting in which they are involved. Bedrosian (1979) also discusses the ability of retarded adults to employ different forms of topic initiations with different interlocutors, and notes their ability to employ appropriate adherence to rules of discourse which determine how, what and when a person can discuss something with another, depending in this case on the role of the interlocutor in question (peer vs. nonretarded child vs. parent).

As can be concluded from this evidence, role relations play an important part in determining the degree to which control in an interaction is exercised by retarded individuals. At the same time, control in an interaction is very much a function of the setting in which participants are engaged, as was previously discussed. The interplay of these two variables cannot be minimized if proper accounts of communicative competence and control in different interactions are to be made. It is maintained by this investigator that greater self-regulatory abilities need to be exercised by speakers in an interaction if these notions of communicative competence and control are to be accounted for. The more control speakers maintain in an interaction, the more they should be able to independently function within

the situation, vis-a-vis their use of self-regulatory verbal patterns utilized in interactions with others. In turn, the more independence speakers demonstrate in their linguistic abilities, the more their competencies should come to be valued by the society at large. From an instructional perspective, to bring students to a level of academic competence wherein they can function in a more self-reliant fashion and depend on instructors to an increasingly lesser degree is the long range goal of schooling. From an habilitative perspective, the adult day treatment program for retarded persons holds a similar orientation and motivation, as instructional staff strive to bring clients to a level of self-sufficiency and independence in all program areas.

## VI. THE ADULT DAY TREATMENT PROGRAM

From the time a diagnosis of mental retardation is first made in childhood, throughout adolescence and into adulthood, persons bearing the label can be found engaging in a variety of educational and/or vocational settings, acting as co-participants in instructional discourse. The effect of such instructional settings on the communicative and interactive abilities of people with mental retardation is likely to be considerable, given the large amount of time that retarded children and adults spend in these settings throughout their habilitative careers. An overview of special education services provided to school-age retarded children will be summarized initially as a means

of introducing the post-educational training and vocational center for retarded adults, or DAY TREATMENT facility, that serves as transitional placement for thousands of young retarded adults as they "age out" of school-based programs.

The passage in 1975 of the Education for All Handicapped Children Act (PL 94-142), changed the way educators viewed the instructional needs of persons with mental retardation. Traditional views of teaching the "three R's" gradually expanded since 1975 to keep pace with a growing awareness that, in order to succeed in today's society, an individual must possess more than a requisite academic background; one must also possess appropriate communicative, social, domestic, financial, recreational and self-preservational skills to exhibit functional independence (MacMillan, 1982). This law requires that all handicapped children under the age of twenty-one receive individually prescribed services in a least restrictive environment. There exists today in the under-21 age bracket within most school districts in the United States different educational options designated by level that provide reasonably good matches with respect to individual student needs. These special education programs span a wide continuum: from mainstream programming for children diagnosed as "educable" (EMR), where lessons and activities are conducted as often as possible within regular classroom sites to enhance greater levels of socially appropriate behavior and independence for the EMR student; to in-patient/institutional programming for those diagnosed with severe to profound

cognitive and physical handicaps (SPMR), where a more medically- and/or clinically-oriented program is conducted, usually in a residential setting, to facilitate basic skill maintenance (Deno, 1972).

Once persons with mental retardation "age out" of educational programming as covered by the auspices of the law, their continued educational and/or vocational options become defined both by the resources available in the community in which they are domiciled and by the skill level of the individual in question. Traditional placements for young adults with mild to moderate mental retardation include either sheltered workshop or competitive work placements, provided that the persons involved possess prerequisite cognitive, physical, social, attitudinal, behavioral and communicative skills necessary for successful tenure in the job market (Wehman, 1981). In the absence of said skills, adults with mild to profound mental retardation will often be placed in day treatment facilities, designed to help people develop greater independence and adjust more readily to their social environment through appropriate instruction.

The primary goal of the day treatment program is to achieve a higher level of independence for the clients involved, with the philosophy of most programs being based on the principles of NORMALIZATION and/or SOCIAL ROLE VALORIZATION (Wolfensberger, 1972, 1974). Day treatment programs seek to facilitate the development and maintenance of skills that will enable retarded individuals to function

independently in a community setting. By stressing functional curriculum through community integration, the process of movement to a vocationally-based program (e.g. sheltered workshop; supported work placement; competitive employment) within a reasonable amount of time is not unrealistic. Day treatment facilities combine traditional curricula, such as activities of daily living (ADL), independent living skills (ILS), self-care, communication and leisure skills, together with vocationally-oriented training such as appropriate work behaviors, travel training and community integration. The environment is supportive, non-threatening and clinically intensive. Functional, age-appropriate goals and activities are stressed. For many adults with mental retardation who are not eligible for placement in either workshop or competitive employment settings immediately following the aging out process, day treatment settings provide continuity of service with respect to training initially made available at the elementary and high school levels.

Service providers of day treatment facilities operate under an interdisciplinary team (IDT) model. In addition to instructional staff members who are responsible for daily programming, the program also routinely provides medical, nursing, occupational therapy, physical therapy, psychology, speech pathology and social services as needed for each person. In addition, special services are made available to each individual as needed, in cooperation with the client's residential program or family. These services, provided in accordance with specific written prescriptions, are usually

obtained outside the regular day treatment program, and include: audiological, dental, optometric, pharmaceutical and psychiatric services, as well as specialized diagnostic or medical services, as required on an individual basis. Strengths and needs are determined through a comprehensive assessment of each individual. The IDT prioritizes and addresses each individual's needs, then evaluates the person's progress on a quarterly basis.

A typical day in the life of an adult retarded person attending a day treatment program is highly structured and regularized from the moment the individual arrives at the site. Upon arrival, clients are responsible for getting to their individual classrooms and addressing a number of routine chores, such as hanging up coats, securing lunches in the appropriate storage areas, punching-in on a time clock and insuring that their names are accounted for on daily attendance sheets. At the same time that these activities are being carried out with varying degrees of instruction at different prompt levels, some clients may also be simultaneously addressing additional goal areas, such as communication skills, in the greeting of one's instructors and/or co-workers in a socially appropriate manner.

Once preliminary activities have been attended to, the remainder of the day treatment program day is scheduled to accommodate the client's core goal areas, thus resembling a typical student's day in the mainstream classroom. A schedule picked at random from the host day treatment program for an individual client reveals the following inventory of

events. After checking in, the client's first scheduled activity is Pre-Voc, where instruction is provided at varying prompt levels, ranging from full demonstration of the task to independent functioning on the particular Pre-Voc activity. Following this session, a Recreation program provided by the Recreation Therapist is conducted. Instruction is again specifically geared to individual need, with varying prompt levels being utilized as appropriate. A Purchasing session follows Recreation where the client receives instruction on generating a shopping list and determining the appropriate amount of money necessary for purchasing those items, utilizing what is known as the "dollar over" theory (rounding off the purchase total to the next nearest whole dollar amount). Following this, a Travel Training session is conducted, usually only once or twice weekly, depending on need. Travel Training consists of taking bus trips, usually to a local mall or shopping area, that are accessible by public transportation. Trip preparations are accomplished prior to the actual outing during a Bus Schedule class, where the client receives instruction on how to read and interpret a current transportation schedule. If a client is scheduled for Travel Training on a particular day, he/she will generally not participate in active programming on-site for the remainder of the day, as trips and/or outings tend to take up the bulk of time before afternoon busing back to the residences. On days where Travel Training is not scheduled, the Purchasing class is followed by the Bus Schedule class, previously

described. Lunchtime follows in the schedule.

In the afternoon, the client attends the Model Apartment component of the day treatment program, which consists of a separate living area, complete with kitchen and bath facilities. In the Model Apartment, ADL and ILS goals are addressed, which may include: bed making, simple meal preparations, sweeping, dusting and vacuuming, as well as personal grooming such as toothbrushing, washing and hair combing. Afterwards, the client attends a Real Life Skills class which consists of problem-solving and community awareness/orientation curricula. Communication goals are next addressed on the schedule, with input provided by the program Speech-Language Pathologist. Following this, an afternoon Break is conducted where clients are allowed to either relax and have a snack in a separate lounge, or smoke cigarettes in a designated area. During the day, clients accumulate "points" for demonstrating appropriate adherence to program rules. These points can be traded in at Breaktime for low-calorie snacks, drinks or smokes, noted previously. The final class is a group discussion on the importance of Nutrition and/or Medication, with input provided by the program Nurse. Punching the time clock and getting ready for afternoon busing completes a typical program day.

The weekly day treatment schedule more or less mirrors the daily schedule, with exceptions given to Travel Training, previously described, and/or Simulated Work experiences where individual clients exhibiting higher

functioning Pre-Vocational, Clerical or Maintenance skills are taken from the classroom environment by a Vocational Rehabilitation Counselor to receive additional training in workshop, office or janitorial areas. These additional placements are usually housed in community settings such as local nursing homes, hospitals or restaurants that have contractual agreements with the host Agency to provide potential training sites for retarded adults. The more independence the client demonstrates in these areas, the less supervision is required. Placement of clients into sheltered workshop, supported work or competitive employment settings often takes place as a result of additional instruction received at this level.

Bearing in mind the importance of the day treatment program as an interim facility geared to further enhancing the independent functioning level of its numerous participants, a lack of studies in the area of communicative and interactive abilities of day treatment clientele should be viewed as problematic. Once placed, individual clients lose the benefit of continued instruction and come to rely heavily on their own resources to make placements work. If instruction is successful at the day treatment level, clients have a good chance at functioning independently within the community at large. If instruction is less than successful, clients may end up being recycled into the day treatment system additional times. All factors considered, the role of the instructional context in facilitating and ensuring the independent functioning level of retarded

individuals cannot be minimized.

What remains to be seen at this point is how adults with mental retardation and their interactants jointly construct an instructional dialogue in a day treatment setting and negotiate for control in the interaction, if any attempt at resolving the issue of questionable communicative abilities of retarded adults in different speaking contexts can be made. The fact remains that relatively little has been done to unveil what is contained in an instructional interaction, since day treatment settings have largely been ignored as potential sites for research inquiries.

Only educated guesses can be made at this point of what may be found out about such interactions, based on what is currently known about instructional/institutional frames. One expectation is that different instructional contexts will elicit varying degrees of control as expressed by the participants. In a more formal instructional setting, measures of control can be expected to be displayed by the person cast as "teacher", in the form of questions or directives (examples of what Bedrosian & Prutting (1978) call "dominant" bids); in a less formal and more egalitarian instructional setting, a shared or bilateral display of control can be expected between participants, in the form of (both dominant and) "submissive" bids, or what Bedrosian & Prutting describe as requests for permission or questions. Placed in roles as "teachers", adults with mental retardation can be expected to display the same types of

controls as their nonretarded counterparts.

The nature of instructional interactions between retarded adults, their classroom instructors and their peers in different settings is of keen investigative interest in that, through such an analysis, one might be able to gain valuable insights into how "control" is obtained across speaker/task domains and how this information might shed light on how instructional practices in a day treatment setting might be exploited to ensure optimal learning for the adult with mental retardation.

## VII. STATEMENT OF PURPOSE

This descriptive-analytic study will address the issues that have been presented re: the questionable self-reliant ability of adult retarded speakers to display communicative competence in different situations; and how this contributes to their ability at exerting some measure of control in the interaction. As this study will focus on the day treatment program as a facility where instructional discourse routinely takes place between adult retarded speakers and their nonretarded instructors, the discussion will describe how retarded subjects function in instructional settings with different speakers, in order to make determinations of their communicative competence.

These settings differ from conversational, more egalitarian settings in that instructional settings possess as their primary purpose the revealing of inadequacies in such

a way that learning strategies of individuals can be effectively evaluated and learning maximized (Silliman, 1984). Edgerton (1967), Sabsay & Kernan (1983) and others who have been previously cited dealt more with informal conversational interactions over an extended period of time between retarded and nonretarded interlocutors who had opportunities for developing special interpersonal relationships and friendships based on the longevity of the contact made between parties. Instructional and institutional contexts differ from that since the participants involved tend to align themselves inherently along dominant-subordinate lines in order to sustain relationships of power between and solidarity within one's group (Hodge & Kress, 1988), fitting themselves into existent "frames" (Agar, 1985).

This study will identify different forms of control that are expressed in instructional interactions involving both non-peer and peer dyads, borrowing from and modifying descriptions of control initially provided by Bedrosian & Prutting (1978). The analysis will make use of verbal "summonses", or calls to action, that Bedrosian & Prutting describe as dominant or submissive bids for relationships offered. Dominant bids will include either initiatory requests for action/attention (STRONG DIRECTIVE: D1), based on a rationale that speakers assume they have the power to make such demands; responsive requests for action/attention (WEAK DIRECTIVE: D2), generally produced in conjunction with strong directives that, in turn, compel respondents to carry out some action; and requests for action/information/

opinion (INFORMED QUESTION: Q1), that require the respondent to supply the correct rejoinder to fact-finding questions that the speaker already possesses knowledge of. Submissive bids will include requests for permission (PERMISSION: P), based on a rationale that asking for permission is an admission of one's lack of power in the interaction, implying the other's authority; and requests for action/information/opinion (UNINFORMED QUESTION: Q2) produced when the speaker is in need of information and thus dependent on the responder for it.

Data will be obtained from a formal instructional (LESSON) context where both staff instructors and client instructors interact with client learners in different teaching dyads (staff-client vs. client-client); and a more egalitarian (JOINT PROBLEM SOLVING) context where learning is accomplished via a coordinative, problem-solving effort between staff-client and client-client dyads. (See Methods chapter for a more complete description of bid types and instructional cells.)

## VIII. RESEARCH ISSUES TO BE ADDRESSED

Based on results obtained from this investigation, it will be determined how quantitative and qualitative measurements contribute to one's knowledge of "control", and how that control is expressed via the use of dominant and submissive bids by retarded and nonretarded participants in different instructional conditions.

a) Non-Peer Interactions : Predictions : In interactions involving retarded clients and nonretarded partners, it is predicted that overall amount of client talk will increase as one moves from a formal teaching setting to a more egalitarian interaction where joint problem solving is stressed. Reciprocally, as client talk increases from more formal to less formal instructional settings, it is posited that nonretarded teacher talk will decrease as instructional settings change. The rationale underlying this hypothesis is based on the information that is presently available re: mainstream instructional discourse, which states that a teacher will gradually speak less and attribute more responsibility to the learner in a task the more that learner demonstrates facility with the task being taught (Cazden, 1988). In such egalitarian situations, retarded speakers would have a greater chance of having their utterances listened to rather than evaluated; understanding this, there would be greater likelihood that their talking would increase in general. In the instructional tasks that are presented, it is posited that teachers will do more speaking in the formal setting, as they carry out their teaching assignment with a set goal in mind, the instruction of a particular game with certain rules that need to be conveyed to the learner. Conversely, it is predicted that teachers will lessen their amount of speaking during joint problem solving situations and clients will speak more, as an inherent outcome of the shared responsibility being exhibited by the dyad.

Considering the qualitative differences between formal and informal settings, it is predicted that nonretarded teachers will display a dominant position in the formal lesson context, in the form of strong and weak directives (D1, D2) (telling clients what to do during a lesson), and informed questions (Q1) (asking questions to elicit already known information), both of which comprise a high proportion of what is known as "teacher directed" discourse during the conduct of a lesson (Duchan, 1989). Complementary to these teacher dominant control bids, it is expected that retarded participants will display a subordinate role, by virtue of their use of uninformed questions (Q2) (requesting unknown information or directions), or in the asking of permission (P) during formal lessons. Such an hypothesis gains support from the works of Agar (1985), Linder (1978b) and Hodge & Kress (1988), who speak of the role of the social class in determining how people come to view themselves as either high status (dominant) or low status (subordinate) members of an interaction, which in turn determines how those members will interact socially and linguistically with others.

During informal instructional interactions involving non-peer dyads, it is predicted that the talk of the nonretarded teacher will grow increasingly less dominant overall, as uninformed questions, permissives and overall incidence of nontask-related talk become more salient characteristics of the instructors' speech patterns. Similarly, as nonretarded members in the task become less domi-

nant given increased instructional informality, it is predicted that retarded speakers will strive for greater dominance in the interaction, via use of either strong (D1) or weak directives (D2) (telling nonretarded persons in the task how to carry out the activity in either an initiatory or responsive manner), or in the asking of informed questions (Q1), to elicit already-known information.

(insert Predictive Table 1 here)

b) Peer Interactions : Predictions : During formal peer instructional settings, it is generally expected that clients acting as teachers in formal peer lessons (Quadrant 2) will speak more overall in comparison to (new) client peers who are additionally selected from the day treatment facility (to provide a sufficient number of individuals needed to create ten peer informal dyads), and paired with the original subjects during joint problem solving (see Methods chapter for more complete description of old/new client dyads in Quadrant 4). The condition of equal status between sets of speakers notwithstanding, this prediction is made based on the observations of such authors as Blank & Milewski (1981) and Cazden (1988), who noted that teachers will control and direct an instructional setting and monopolize the interaction initially while learners gain competence with the task being presented. Given that clients as teachers will have an agenda to accomplish, they would possess an inherent motivation to engage in whatever verbal means necessary to complete the instruction of the task.

## TABLE 1
## PREDICTIONS : NON-PEER INTERACTIONS

A) Retarded Speakers

1) Retarded persons will speak more in joint problem solving situations than they do in formal lessons;

2) Retarded persons will exhibit greater submissiveness (Q2, P bids) in formal lessons than they do in joint problem solving situations; and

3) Retarded persons will exhibit greater dominance (D1, D2, Q1 bids) in joint problem solving situations than they do in formal lessons.

B) Nonretarded Speakers

1) Staff members will speak more in formal lessons than they do in joint problem solving situations;

2) Staff members will exhibit greater dominance (D1, D2, Q1 bids) in formal lessons than they do in joint problem solving situations; and

3) Staff members will exhibit greater submissiveness (Q2, P bids) in joint problem solving situations than they do in formal lessons.

Reciprocally, clients as learners in the formal peer interaction are expected to speak less than they do in the joint problem solving situation, based on the condition of the formality in the setting which calls upon them to serve in subordinate roles as recipients of instruction. Original client members in the joint problem solving situation, in turn, are expected to speak more than they do as client-learners in the formal peer setting, given that the informal, egalitarian situation is considered more conducive to eliciting talk by its members. (In the same vein, the total number of utterances produced by both members of the peer joint problem solving dyad are expected to produce more utterances overall than client-teachers and client-learners combined in the peer formal lesson setting, given the belief that increased egalitarianism facilitates more talking by those members who engage in the informal task.)

Two further expectations concerning the amount of talk produced by subjects in the formal and informal peer lesson conditions are: First; that the overall amount of talk produced by subjects as learners in the peer formal lesson will be greater than the overall amount of talk produced by themselves when paired with nonretarded teachers in a formal lesson. Again, this prediction is made based on what is presently known about the linguistic patterns of similar and dissimilar groupings of speakers (Agar, 1985; Edgerton, 1967; Hodge & Kress, 1988), where persons of a recognized different station will speak more (or less) depending on perceived conditions of status.

Secondly, it is expected that retarded subjects in the peer informal lesson context will produce more utterances than they are expected to when paired with nonretarded partners in a joint problem solving situation. The same rationale underlying the prediction made immediately above pertains in this prediction as well, given the nature of the different roles that retarded subjects' interlocutors will employ in the contrastive settings.

Qualitatively, it is posited that retarded adults serving as teachers will display greater dominance in their interactions with peer learners than will their (new) retarded peers during informal peer lessons. Thus, strong and weak directives and informed question types over submissive bid types can be expected by retarded instructors who are paired with peer-learners and placed in an inherently dominant position as instructional providers.

Client-learners, on the other hand, are expected to display greater submissiveness in the formal peer lesson than they are expected to display during joint problem solving. This prediction is based on the belief that client learners will behave in similar fashion to retarded individuals who engage in formal lessons with non-peers, placed as they are in an inherently subordinate position in the interaction as instructional recipients.

While clients as learners are predicted to be more submissive in a peer formal lesson than they are expected to be in joint problem solving, they are at the same time expected to display greater dominance with their retarded

teacher counterparts during peer formal lessons than will have been noted in their performance in non-peer formal lesson settings. Clients as learners in peer formal settings are therefore expected to display greater incidence of dominant bids than they are expected to in non-peer formal lesson settings, given the condition of equal status between retarded teachers and learners. The condition of equal status between participants in an interaction has been identified as having a contributing effect in facilitating an increased number of initiations and/or requests for clarification between retarded speakers in peer interactions (Abbeduto & Rosenberg, 1980; Anderson-Levitt & Platt, 1984; Bedrosian, 1979).

In the same vein, retarded subjects in the informal peer lesson are expected to display greater dominance in their interactions with new retarded peers than will have been noted in their performance with nonretarded interlocutors from the informal lesson setting. This expectation is again predicated on the belief that in the peer egalitarian setting, individuals will be more likely to display a dominant position with persons who are considered their equals than with persons who are not.

Finally, during joint problem solving situations involving peer participants, it is expected that original retarded subjects will produce more bids overall than they do as client-learners; and new retarded peers will produce more bids overall than clients serving as teachers. If, as predicted above, client-learners display a more subordinate

position in the peer lesson than they do in the informal setting, and client-teachers display a more dominant position than (new) retarded peers in the informal setting, they are still-in-all expected to display less overall bidding than their informal peer counterparts, given that the peer joint problem solving situation is expected to elicit the most egalitarian or collegial behavior of any of the experimental conditions in the study, which would indicate that both dominant and submissive bids be displayed in significant measure.

(insert Predictive Table 2 here)

If the results being suggested are obtained and are not due to individual teacher or client variability, than differences will be attributable to the inherently different nature of the types of instruction being provided (independent variable of setting); and to certain role expectations that adults with mental retardation and their nonretarded interlocutors possess when interacting with persons of perceived different (or same) social orders (independent variable of role relationship). Based on the results of this investigation, it will be demonstrated that retarded subjects can exhibit control and some degree of regulatory language in their instructional interactions with others. This would lend support to the Competence Model of linguistic abilities described above, which views adult retarded speakers as being capable interactants in the exercise of self-regulation and control in different speaking

TABLE 2
PREDICTIONS : PEER INTERACTIONS

A) Client Teachers

1) Retarded persons as teachers in peer formal lessons will speak more than added peers in joint problem solving situations; and

2) Retarded persons as teachers in peer formal lessons will display greater dominance (D1, D2, Q1 bids) than added peers in joint problem solving situations.

B) Client Learners

1) Retarded persons as learners in peer formal lessons will speak less than they do in joint problem solving situations;

2) Retarded persons as learners in peer formal lessons will display greater submissiveness (Q2, P bids) than they do in joint problem solving situations;

3) Retarded persons as learners in peer formal lessons will speak more than they do in non-peer formal lessons; and

4) Retarded persons as learners in peer formal lessons will display greater dominance (D1, D2, Q1 bids) than they do in non-peer formal lessons.

C) Informal Dyads

1) Retarded subjects in peer joint problem solving situations will speak more than they do in non-peer joint problem solving situations;

2) Retarded subjects in peer joint problem solving situations will display greater dominance (D1, D2, Q1 bids) than they do in non-peer joint problem solving situations;

3) Peer dyads in joint problem solving situations will cumulatively speak more than peer dyads in formal lessons;

4) Retarded subjects in peer joint problem solving situations will produce more overall bids (D1, D2, Q1, Q2, P) than clients as learners in formal lessons; and

5) New retarded peers in joint problem solving situations will produce more overall bids (D1, D2, Q1, Q2, P) than clients as teachers in formal lessons.

situations (Anderson-Levitt & Platt, 1984; Bedrosian & Prutting, 1978; Owings & McManus, 1980).

This repeated measures study involving adult retarded subjects with both nonretarded teachers and peer interactants across different instructional conditions will also help to resolve several issues. Primarily, it will address the main issue of questionable competence of adult retarded speakers across different speaking situations and will demonstrate that adults with mental retardation do possess the self-regulatory skills needed to function in a more independent fashion. The study will also help in specifying exactly which instructional conditions and role relationships are more or less conducive to eliciting measures of control, that in turn contribute to an individual's overall independent functioning status. Further, it would suggest new ways of looking at both formal and informal instruction, with an increased emphasis placed on peer teaching and informal peer and non-peer interactions to foster greater self-reliance and independence.

The population of mildly and moderately retarded individuals is of particular interest in that these persons are most likely to make moves to a less-restrictive environment at some point in their habilitative "careers", either sheltered workshop, supported work or competitive employment settings, by virtue of their possessing higher level adaptive skills and intellectual functioning. Such investigations may help to identify those interactive skills which are necessary for the person with mental retardation to

ultimately achieve a more independent living status within the community, by virtue of their being able to derive optimal benefit from instruction received.

# CHAPTER II : RESEARCH METHODS

## I. SUBJECTS

Ten adults (five male and five female) with diagnoses in the range of mild to moderate mental retardation, as determined by performance on psychological test assessments (IQ range between 40 and 70) and adaptive behavior composites (standard scores between 20 and 50 on communicative skill domains) were selected to participate in the present repeated measures investigation as both learners and instructors in different tasks. Subject selection was further determined on the basis of:

a) sensory capability - no identifiable problems with hearing or vision, as indicated in case records;

b) verbal ability - unimpaired intelligibility at the level of conversational speech, based on Shriberg & Kwiatkowski (1982) phonological criteria;

c) native language - English;

d) age - chronological age greater than 21 years 0 months, younger than 50 years 0 months;

e) passable performance on functional language assessment tool (Let's Talk Inventory; Wiig, 1982);

f) involvement in an adult day treatment facility; and

g) informed consent of participant, parent/guardian, and residential facility.

Of the ten subjects selected to serve as participants in the study, two possessed the diagnosis of moderate mental retardation (one male and one female). All remaining subjects were diagnosed as mildly retarded, according to

the latest available results of psychological testing. The mean age of the subjects was 33 years 4 months of age (age range : 22-11 to 48-9). None demonstrated any identifiable problems with hearing or vision, as determined by a review of their case records. Each exhibited unimpaired intelligibility at the level of conversational speech, based on the phonological criteria of Shriberg & Kwiatkowski (1982), and all were native English speakers. All the subjects exhibited passable performance on the functional language assessment tool, the Let's Talk Inventory (Wiig, 1982), which examines subjects' abilities to verbally formulate appropriate forms of ritualizing, informing, controlling and feeling in a picture discussion task that yields both a morpheme count and a determination of appropriateness of response. All subjects, parent/guardians and residential facility managers provided their signed informed consent to having retarded individuals participate in the study prior to being videotaped (see Appendix for Consent Forms).

Male and female instructors were included in the study based on their willingness to participate in videotaping procedures. Instructional staff were classified at either the Senior Instructional or Instructional level, which reflected both proven competence in teaching, as well as longevity with the Agency. Each instructor in the study possessed a baccalaureate degree and provided a signed, informed consent (see Appendix).

## II. DESIGN

A repeated measures procedure was incorporated in the study. Subjects were pseudo-randomly assigned to both instructors and/or peers, based on subject availability. The subjects with mental retardation were engaged in two separate teaching conditions: Lessons and Joint Problem Solving (Independent variable: INSTRUCTIONAL CONDITION). Under each condition, subjects were engaged in each of two different dyads, one with a Staff member and one with a Peer interactant (Independent variable: ROLE RELATION).

Under the Formal Lesson with Staff condition (Quadrant #1), two instructors, one male and one female, were selected to work with five subjects each from the total subject population. The male instructor taught Game #1 while the female instructor taught Game #2 to their respective clients.

Under the Formal Lesson with Peer condition (Quadrant #2), each subject taught game #1 by the male instructor was required to teach that game to a subject who had learned Game #2, and vice versa. Pairs were kept consistent; client A teaching Game #1 to client B was in turn taught Game #2 by that same client B, when his/her turn arose.

Under the Joint Problem Solving with Staff condition (Quadrant #3), half the subjects engaged in one informal craft activity (#1), while the other half engaged in a different craft activity (#2). Ten different instructors were employed under this condition, to be paired with each

of the ten subjects. This was done to ensure a general uninformedness of all participants throughout taping.

Under the Joint Problem Solving with Peer condition (Quadrant #4), ten additional subjects from the overall day treatment population, meeting entrance criteria for inclusion as study participants, were selected and paired with the original ten research subjects. The half of those original subjects who had engaged in craft activity #1 under Quadrant 3 were given the alternate craft activity (#2) to conduct, and vice versa. Those who had worked with craft activity #2 with a staff member were given craft activity #1 to engage in with a peer interactant.

(insert Fig. 1 : Research Design here)

Frequency counts were made of total number of utterances produced by each of the dyad members, either "teachers" or "clients". In addition, dependent variable measures of "control", consisting of any dominant or submissive attempts made to engage the other person in the interaction, were tallied in each of the aforementioned Quadrants. The Dominant control bids included: strong directives (D1), weak directives (D2), or informed questions (Q1). The Submissive control bids included: requests for permission (P), or uninformed questions (Q2), based on the work of Bedrosian & Prutting (1978). Finally, utterances that were uncodeable (EXTRA), according to the criteria that constituted either dominant or submissive bids, were tallied to account for the remainder of utterances that contributed to

INSTRUCTIONAL CONDITION

| | | LESSON | | PROBLEM SOLVING |
|---|---|---|---|---|
| | | QUADRANT 1 | | QUADRANT 3 |
| | | C1 | C6 | craft 1 craft 2 |
| | | C2 | C7 | T: 1 2 3 4 5 6 7 8 9 10 |
| | STAFF T1 | C3 | T2 C8 | |
| | | C4 | C9 | C: 1 2 3 4 5 6 7 8 9 10 |
| ROLE | | C5 | C10 | |
| RELATION | | QUADRANT 2 | | QUADRANT 4 |
| | | | | craft 2 craft 1 |
| | | C1 C2 C3 C4 C5 | | C: 1 2 3 4 5 6 7 8 9 10 |
| | PEER | | | |
| | | C6 C7 C8 C9 C10 | | P: 11 12 13 14 15 16 17 18 19 20 |

KEY : T = TEACHER; C = CLIENT; P = PEER

FIGURE 1 : RESEARCH DESIGN (Setting X Role)

the total utterance count. (See Transcription Guidelines and Coding Rules sections for more complete descriptions of what constituted utterances and dominant/submissive bids.)

## III. VIDEOTAPING PROCEDURES

Prior to the implementation of taping at the day treatment program, several de-sensitization sessions were carried out by the investigator, to acclimate subjects and nonretarded instructors to the presence of the videotaping equipment. The camera used was a Sony Video 8 AF (Auto Focus) camera, with conventional tripod. During the acclimatizing sessions, the camera was placed in each classroom of the day treatment facility for a period of one hour each day for a total of three days, during the course of routine programming. While the camera was present, no actual taping was conducted. As noted, the camera was present to allow the program participants and staff members to become adjusted to its presence and to control for any artifactual effects of taping that might have occurred later had the acclimatizing procedure not been carried out.

Once actual taping sessions commenced, care was taken to maintain the same environmental conditions from one setting to the next. However, due to the availability of rooms at the day treatment program, the investigator was not always able to use the same room for taping on a consistent basis. Over 70% of the sessions conducted (29 of 40 sessions) were carried out in an area known as the "client

lounge", a large room reserved for break periods, occasional meetings and classroom activities. The remaining 11 of 40 sessions were carried out in smaller offices, based on availability, whenever the client lounge was reserved for some other purpose.

For the purposes of taping, the Sony Video 8 AF camera was placed on a conventional tripod in front of the working area, at a distance approximately 12 feet away from the table on which activities were carried out. This was done in order to control for camera focusing and also to allow the participants enough room to carry out the presented tasks. When sessions were conducted in a smaller workplace, it was necessary to place the tripod at a closer distance to the participants, given the confines of the environment.

All extraneous materials were removed from the work surface prior to the taping of each session, and only those items required for the completion of the task were included. Care was taken to insure that entrances to the room in which taping occurred were not accessible from without, in order to afford the participants privacy in the completion of their designated tasks. Once the investigator explained what would be required of the task participants at the beginning of each session, he excused himself from their presence and allowed the session to commence. The investigator was able to monitor the progress of each session via use of a small window in the door of the taping room, which was used as unobtrusively as possible. Occasional incidents of making eye contact with a participant within the taping

area were unavoidable and were not felt to be a deterrent factor in obtaining a good taping session.

## IV. INSTRUCTIONAL CELLS

a) Formal Lesson with Staff : As reviewed previously, a formal lesson is viewed as one type of event which typically occurs in a classroom setting, possessing its own set of identifying criteria (Duchan, 1989). The language and interactional patterns of typical lessons are constrained by the settings in which they occur, serving to distinguish them from patterns that exist in less formal classroom interactions, such as sharing time or free time. For the present investigation, two different activities were selected as a means by which the formal instructional setting between adults with mental retardation and nonretarded teaching staff could be studied. As per the given definition of formal instruction, teachers possessed prior knowledge of the lesson, since they would be responsible for conveying the information to their instructees.

1) Game # 1 : One instructor, a female, was selected to provide instruction to five of the ten adult retarded subjects in this cell. Three male and two female subjects were selected to participate in these game sequences. Rather than using several instructors, one was selected to provide training in order to ensure continuity of instruction across the five recipient subjects.

The card game "Old Maid" was selected, based on the

fact that card games in general are known to the subject population, and are routinely included in the recreational therapy curriculum of the day treatment program where videotaping occurred. In addition, card game activities were employed in a prior pilot investigation by this researcher, at which time it was determined that this type of recreational activity was conducive to facilitating the types of control bids desired for the present study.

In "Old Maid", three of the four Queens included in the deck were removed from play and the remainder of the cards were shuffled and dealt out in their entirety. Following this, all apirs from each of the players' hands were removed from play until only unpaired cards remained. The game proceeded as players alternated turns by selecting cards one at a time from the opponent's hand and matching the selected card with one from their own hand. These turns continued until all apirs but the final one and the last remaining Queen, the "Old Maid" herself, remained. On the final turn of the game, the player whose turn it was selected one of the lat two cards from the opponent player in the hope that the non-Queen card would be selected. That player left holding the Queen in his/her hand was the "Old Maid", or loser of the game.

2) Game # 2 : A male instructor was selected to provide instruction to the remaining five of ten adult retarded subjects in this experimental cell, in order to control for the possibly confounding variable of gender. The remaining three female and two male subjects from the

original ten clients participated in these game sequences. The game "Super Tic Tac Toe" was selected, again based on the relative familiarity subjects have with board games in general, as they are included in the recreational therapy curriculum of the day treatment program. While board games themselves were not employed by this researcher during the pilot investigation conducted, it was determined by way of an interview procedure with the subjects employed at that time that they were indeed a source of enjoyment. It was thus determined by the researcher that such an activity would be conducive to eliciting the control bids of interest. This information was taken into account as plans for the formal study were being drawn up.

In "Super Tic Tac Toe", an oversized cloth mat containing a 4 X 4 boxed grid was used, in conjuction with large black and red checker pieces which served as markers. In contrast to regular Tic Tac Toe where players alternate placing X's and O's on a 3 X 3 grid until either three in a row across, up-and-down or diagonally is attained, players in "Super Tic Tac Toe" alternated placing either black or red markers on the 4 X 4 grid until either four in a row across, up-and-down or diagonally was attained. In addition, two other forms of winning were included in this version of the game, whereby placing pieces in the four corners of the mat, or clustering four pieces on the grid in the shape of a square also constituted "wins".

b) Joint Problem Solving with Staff : As previously defined, this type of context is more conversational in nature, in that neither of the dyadic participants involved in the task possesses any privileged information prior to the introduction of the task, thereby making them less likely to know the "right" way to approach the problem to be solved. The intention was to create a context that was more conversational and less instructional (Duchan, 1989), such that the adult subjects with mental retardation would have more of a chance to make initiatory moves and increase the possibility that their talk would be listened to rather than evaluated. For the present investigation, two different activities were selected as a means by which the joint problem solving situation between retarded and nonretarded partners could be studied. All participants of these informal lessons were left uninformed prior to their arrival at taping, in order to satisfy the condition that neither member of the dyad possess prior knowledge of the task.

1) Planter Activity : In order to guarantee uninformed status on the part of all persons involved, five different teachers were employed, together with five of the ten original adults with mental retardation, pseudorandomly assigned to one another, based on client availability on the day of testing, to serve as joint problem solvers. The same two senior instructors used during formal game sequences were again utilized in these joint problem solving sessions, along with three additional instructional staff, including two female and one male instructor. In an

attempt to control for the possibly confounding variable of gender, the dyads were comprised of the following configurations: female-female (1); male-male (1); male-female (1); & female-male (2). (Note: Whenever non-peer dyads are noted by gender as they are presently, teachers will be listed first followed by clients.)

Prior to the arrival of the dyad, two boxes of materials were set up at the work area, each of which contained half the materials needed to complete the making of a terrarium planter. One box contained potting soil, white gravel and a few plant cuttings, while the other box contained both red and blue gravel, an empty cup and a pair of scissors. An already completed terrarium planter was placed in plain sight of the participants to serve as a working model. Upon their arrival, the dyad was given the following instruction:

"You see in front of you a planter that has just been completed. You also each have a box of materials in front of you. Together, you must make another planter like the one you see in front of you. You cannot use any material unless it is from the box in front of you."

2) Craft Hoop Activity : Similar to the planter activity described above, five different instructors were pseudo-randomly paired with the five remaining clients from the original ten. Pseudo-randomization of five different instructors with this group of subjects was again done to insure their general uninformed status concerning the task to be presented, and to encourage a more spontaneous informational exchange during the joint problem solving endea-

vor. The dyads were arranged in the following manner, with care taken to mix the groupings in order to control for the possibly confounding variable of gender: female-female (1); male-male (1); male-female (1); and female-male (2).

Two boxes were once again set up to contain half the materials needed to complete the craft hoop activity. One box contained a few samples of a cloth design, a wooden embroidery hoop, a ribbon bow and craft flower, while the other box contained a pair of scissors, a length of lace edging, and a tube of tacky glue. An already completed craft hoop was provided on the table to serve as a working model for the participants to study. Upon their arrival, the dyad was given the following instruction:

"You see in front of you a craft hoop that has just been completed. You also each have a box of materials in front of you. Together, you must make another craft hoop like the one you see in front of you. You cannot use any material unless it is from the box in front of you."

c) Formal Lesson with Peers : Under the present condition, a formal instructional context was again established, involving retarded subjects teaching games to peers that were previously learned from nonretarded instructors. This was done in order to determine how dominant and submissive bids for control were utilized by retarded individuals who shared the same "collegial" status with one another going into the interaction, but who were compelled to behave as unequals during the instruction, by virtue of the different knowledge they each had about the game to be conducted.

The games employed previously (#1: Old Maid; #2: Super

Tic Tac Toe) were again used in this peer instructional context. Those clients that received prior instruction in Game #1 instructed the second group of clients in the playing of that game, while Game #2 instructees taught their game to group #1. The same materials and rules described previously were again incorporated under this instructional condition.

1) Game # 1 : Game #1 dyads were aligned in the following manner, in order to control for possibly confounding gender effects: female-male (2); and male-female (3). (Note: In these dyads, retarded subjects involved in providing the instruction are listed first, followed by retarded instructees).

2) Game # 2 : Game #2 dyads were aligned as follows: female-male (3); and male-female (2). As noted above, pairings were kept together such that one client from the first group taught the other from the second group, and vice versa.

d) Joint Problem Solving with Peers : As previously noted, joint problem solving provided opportunites for participants to engage in tasks where each member in the dyad assumed an equal standing with the other, given the uninformed status each person possessed going into the activity.

In order to accomplish this criterion, it was necessary to recruit additional client members from the overall day treatment population and pair them with the original mem-

bers, as the initial group of subjects used in both staff and peer games and staff problem solving sessions was not sufficient in number to ensure the creation of ten dyads across two joint problem solving activities. Therefore, ten more clients from the overall day treatment population were recruited to help form the additional peer problem solving units. Six female and four male clients, ranging in age from 21-6 to 47-11 (average age: 28-1), were employed in these peer situations. Nine persons were diagnosed as mildly mentally retarded, while one female client was diagnosed as moderately retarded. All remaining criteria for client inclusion in the study, including native language, passable performance on a functional language assessment tool, and unimpaired intelligibility were met with this group.

These newly recruited persons were paired together with the original group members to form the ten dyads needed for this experimental condition. In the analyses conducted, the focus of attention remained with the original group of ten subjects; newly added members were discussed only insofar as how they related to the original members in question. (Note: In the dyad configurations that follow, members from the original ten are listed first in the pair.)

1) Planter Activity : The same activity that was conducted previously involving an adult client with a staff member was re-created using two peer participants. The same materials were used, separated into boxes for each member of the dyad, with the same general instructions provided at the beginning of the session. Client pairings follow:

female-female (2); male-female (2); and female-male (1).

2) Craft Hoop Activity : Similarly, the craft hoop activity originally used in a staff-client dyad was re-created under this peer problem solving condition. The same materials were used, with the exception that the craft material depicted a more seasonal (winter) theme, as opposed to an animal theme used earlier with staff-client pairs. The dyads consisted of the following pseudo-randomized groupings of original and new client subjects: male-male (2); male-female (1); female-male (1); and female-female (1).

## V. TRANSCRIPTION GUIDELINES

Language samples derived from the four instructional conditions were individually transcribed into standard English orthography and segmented into utterances, following Loban's (1976) notion of "communication unit". A communication unit, or C-unit, was considered an independent clause with all of its modifiers. Pauses occurring within C-units were indicated by a period in the written transcript; one period per one second of pause. Additional criteria, adapted from Wyckoff (1984), and based on pilot analyses, included:

a) Use of double slant lines (//) at the end of each C-unit (e.g. Now you can deal//). C-units minimally included an independent clause;

b) Treating phrases without a copula (e.g. something nice//; magic marker//) as a C-unit when not joined to a preceding or following C-unit;

c) Use of a single slant line (/) at the end of each dependent clause within a C-unit (e.g. Cause when you don't have anything to put down/ you're gonna hafta pick a card//);

d) Dividing independent clauses joined by coordinating conjunctions (and, but, or) and counting the following utterance as part of a second C-unit (e.g. Now this is a Queen// and it's a spade//);

e) Counting compound predicates as one C-unit (e.g. So pick it up and try again//);

f) Treating introducers as dependent clauses to the following C-units (e.g. Alright/ now you gotta deal the cards//);

g) Treating tags as separate but dependent clauses to C-units (e.g. You gotta turn over the top one// OK?//);

h) Enclosing sentence fragments, unintelligible utterances, or words that are extraneous to the C-unit, in brackets ([]). Examples include:

1) false starts and revisions - The one time we can put down something/ that's not [a 10] the same number/ or the same suit is an 8//;

2) filled pauses - Yes Keith [mmm];

3) immediate repetitions - Do you have any diamonds [diamonds] at this point?//

## VI. RULES OF CODING

After transcribed segments of dialogue were segmented into C-units, key instructional utterances were rated as exemplars of either dominant or submissive bids for action, based on criteria established by Bedrosian & Prutting (1978). Some examples of bid types follow.

### a) Dominant Bids

1) Strong Directives (D1) : Initiatory utterances that compel or request the listener to carry out some action during the activity:

e.g. Put your name on that one//
Just draw a circle//

2) Weak Directives (D2) : Responsive utterances produced in conjunction with strong directives that, in turn, compel the listener to carry out some activity; contextualized utterances produced in the conduct of the activity that ensure the continuation of the activity; or utterances that reflect some curricular or activity-specific meaning:
e.g. Tell me what you want// (D1) or Have any 3's?// (Q2)
Give me the green one// (D2) Go fish// (D2)
or I have to deal the cards// (D2)
We're gonna put this in the cup// (D2)

3) Informed Questions (Q1) : Utterances that require the listener to supply correct responses to fact-finding questions which the speaker alrady possesses knowledge of:
e.g. What's the name of the game we're playing?//
What time do you arrive at program?//
What do we need to cut the string with?//

b) Submissive Bids

4) Uninformed Questions (Q2) : Utterances that request needed information and that are dependent on the respondent for supplying it; or utterances that request opinions:
e.g. What do we need to do this project?//
How do you think it's coming out?//

5) Requests for Permission (P) : Utterances that request permission of the co-participant, implying one's lack of authority in an interaction:
e.g. Can I use the scissors?//
Can I show this to my class?//

## VII. INTER-RATER RELIABILITY

Following transcription and coding procedures of the 40 observational tape sessions across the four Quadrants, 10% of the transcribed data were coded for their dominant and submissive bids of control by an independent utterance rater, unattached to the present investigation. The individual, possessing a master's degree in clinical psychology and with three year's experience in working with an adult developmentally disabled / mentally retarded population, was provided with two hours of instruction by the study's

investigator re: how utterances could be identified as either a dominant (D1, D2, Q1) or a submissive (Q2, P) bid for control. Remaining (EXTRA) utterances were to receive no code. The individual was further provided with the original videotaped data and was informed that they were to be used in conjunction with control bid definitions, also provided, to assist the individual in coding the transcribed utterances.

Following the re-coding procedures, it was determined that an inter-rater reliability of 82% was attained. Remaining utterances (18%) where no agreement took place were further examined across ratings. It was observed that in cases where the first rater assigned some dominant control bid, the second rater likewise assigned a dominant bid, but of a different category. Submissive bid ratings were consistent across raters; full agreement was made re: how to score submissive bids. Finally, regarding uncodeable items, the second rater had a tendancy for attributing weak directive designations to certain items that were left as uncoded by the first rater. Some discussion between the two raters ensued regarding the category of weak directives, and specifically the aspect of "curricular language" that fell under the weak directive category, which caused most of the disagreement re: EXTRA utterances.

Overall, the conclusion drawn was that, for purposes of the questions addressed in this study, the two raters were very close in their rating schemes, and that a high reliability existed between both sets of rated data.

# CHAPTER III : RESULTS

## I) QUANTITATIVE MEASURES

All turns produced in the 40 observational sessions across teacher and task domains were initially transcribed and segmented into utterances, following Loban's (1976) criteria of what constitutes a "communication unit" or C-unit. A C-unit is considered an independent clause with all its modifiers (see Methods chapter for a more complete description). Following that, utterances were coded according to dominant or submissive bid criteria, and the means and standard deviations for dependent variables of control (D1, D2, Q1, Q2, P), as well as uncodeable (EXTRA) utterances, were tabulated. Also included in the summary tabulations were frequency counts of utterances that were produced, both by the sum of the participants in each dyad (SUM-UTTs or sum of the utterances); and also by either speaker in the dyad (T-UTTs or Teacher utterances; and C-UTTs or Client utterances). This was done in order to get an idea of how the overall amount of talk was distributed across dyads both within conditions, and as instructional conditions changed. In addition, all occurrences of ZERO BIDS were included, or those cases in which no examples of dominant or submissive bids or uncodeable utterances were produced by (X) number of speakers involved.

(insert Table 3 here)

TABLE 3

SUMMARY OF BID-TYPE MEASUREMENTS BY QUADRANT

| VARIABLES | QUAD 1 | QUAD 2 | QUAD 3 | QUAD 4 | ZERO BIDS (N) |
|---|---|---|---|---|---|
| | mean (SD) | mean (SD) | mean (SD) | mean (SD) | |
| SUM-UTTs | 147.0 (37.8) | 56.0 (47.8) | 176.3 (73.4) | 72.8 (46.2) | 0 (N=40) |
| T-UTTs | 114 (30.1) | 29.7 (27.7) | 118 (48.3) | 44.1 (34.6) | 0 (40) |
| D1 (T) | 18.9 (10.9) | 4.7 (4.2) | 23.0 (13.9) | 6.5 (8.5) | 4 (40) |
| D2 (T) | 55.0 (9.8) | 14.8 (11.0) | 34.5 (20.1) | 9.3 (7.2) | 2 (40) |
| Q1 (T) | 5.2 (7.5) | 0.0 (0.0) | 10.9 (15.2) | 0.1 (0.3) | 23 (40) + |
| Q2 (T) | 5.1 (3.6) | 4.4 (7.4) | 13.9 (7.5) | 6.4 (4.9) | 4 (40) |
| P (T) | 0.0 (0.0) | 0.0 (0.0) | 0.3 (0.6) | 0.1 (0.3) | 37 (40) + |
| EXTRA (T) | 29.8 (12.5) | 5.8 (7.4) | 35.4 (16.3) | 20.2 (19.9) | 33 (40) + |
| C-UTTs | 33 (14.5) | 26.3 (25.9) | 58.3 (30.1) | 28.7 (21.1) | 0 (40) |
| D1 (C) | 1.2 (1.03) | 1.0 (2.2) | 4.5 (5.3) | 3.6 (4.5) | 16 (40) |
| D2 (C) | 9.9 (6.7) | 12.4 (11.8) | 16.2 (14.9) | 9.9 (8.4) | 3 (40) |
| Q1 (C) | 0.3 (0.6) | 0.0 (0.0) | 0.7 (2.2) | 0.1 (0.3) | 36 (40) + |
| Q2 (C) | 3.7 (4.2) | 4.2 (4.2) | 7.9 (9.3) | 4.7 (4.0) | 6 (40) |
| P (C) | 0.0 (0.0) | 0.1 (0.3) | 0.2 (0.4) | 0.0 (0.0) | 37 (40) + |
| EXTRA (C) | 17.9 (12.1) | 8.6 (10.4) | 28.8 (13.2) | 11.9 (11.1) | 22 (40) + |

KEY : (T) = TEACHER; (C) = CLIENT; SUM-UTTs = SUM OF UTTERANCES;
T-UTTs = TEACHER UTTERANCES; C-UTTs = CLIENT UTTERANCES;
D1 = STRONG DIRECTIVES; D2 = WEAK DIRECTIVES; Q1 = INFORMED QUESTIONS;
Q2 = UNINFORMED QUESTIONS; P = PERMISSIVES; EXTRA = UNCODED UTTERANCES

+ Over half the total number of participants across conditions failed to produce this bid or non-bid

## II) STATISTICAL ANALYSES

Following the coding of data into dominant and submissive bids and uncodeable utterances, separate analyses of variance (ANOVAs) were conducted to compare results obtained in the different experimental conditions. The element of TIME was factored into the ANOVA equation as a covariant, in order to control for the fact that in the four separate instructional conditions, the mean length of time spent in each activity was different across condition. In Quadrant 1, the mean length of time spent in the activity was 6 minutes 11 seconds; Quadrant 2 mean length of time was 4 minutes 40 seconds; Quadrant 3 mean length of time was 9 minutes 39 seconds; and Quadrant 4 mean length of time was 8 minutes 5 seconds.

Based on predictions made re: how peer and non-peer dyads were expected to behave across instructional quadrants, the following comparisons were selected as being germane to the issues of interest:

Role Relations

- a) Quad 1 X Quad 2 (non-peer vs. peer formality);
- b) Quad 3 X Quad 4 (non-peer vs. peer informality).

Setting Conditions

- c) Quad 1 X Quad 3 (non-peer formality vs. informality);
- d) Quad 2 X Quad 4 (peer formality vs. informality).

(insert Table 4 here)

An initial inspection of crosstabulation by quadrant

TABLE 4

ANOVA CONTRASTS ACROSS QUADRANTS

| VARIABLES | | 1 X 2 | 3 X 4 | 1 X 3 | 2 X 4 |
|---|---|---|---|---|---|
| | (df's) | ANOVAs | ANOVAs | ANOVAs | ANOVAs |
| SUM-UTTs | F(1,17) = | 8.66 ** | 22.25 *** | 0.74 | 5.19 * |
| T-UTTs | F(1,17) = | 23.5 *** | 17.69 *** | 2.56 | 1.36 |
| D1 (T) | F(1,17) = | 5.03 * | 8.47 ** | 1.15 | 0.004 |
| D2 (T) | F(1,17) = | 41.5 *** | 12.08 ** | 13.36 ** | 5.82 * |
| Q2 (T) | F(1,17) = | 3.45 ~ | 5.61 * | 3.79 ~ | 1.63 |
| SUMBID (T) | F(1,17) = | 21.1 *** | 23.95 *** | 2.84 | 2.47 |
| C-UTTs | F(1,17) = | 0.48 | 7.29 * | 0.63 | 4.24 ~ |
| D1 (C) | F(1,17) = | 0.50 | 0.03 | 0.20 | 0.09 |
| D2 (C) | F(1,17) = | 5.36 * | 0.49 | 0.001 | 4.21 ~ |
| Q2 (C) | F(1,17) = | 0.49 | 0.31 | 0.15 | 1.63 |
| SUMBID (C) | F(1,17) = | 4.54 * | 0.59 | 0.04 | 3.37 ~ |

p <.10 ~ (trend); p <.05 *; p <.01 **; p <.001 ***

KEY : (T) = TEACHER; (C) = CLIENT; SUM-UTTs = SUM OF UTTERANCES;
T-UTTs = TEACHER UTTERANCES; C-UTTs = CLIENT UTTERANCES;
D1 = STRONG DIRECTIVES; D2 = WEAK DIRECTIVES; Q2 = UNINFORMED QUESTIONS;
SUMBID = SUM OF ALL BID TYPES

indicated that two different bids, the (dominant) informed question bid, or Q1, and the (submissive) permission bid, or P, were produced in insufficient number across observations and speakers to have any notable effect on the outcome of the investigation; more than half the 40 teacher and 40 client members engaged across instructional tasks produced zero exemplars of the two bids in question, thus skewing the sample (see Table 1 : ZERO BIDS). It was therefore determined not to include those bids in the ANOVA comparisons conducted. However, a new category named SUMBID, which collapsed all dominant and submissive categories together to provide some measure of the overall control attributed to speakers, was included in the analysis. In so doing, the Q1 and P bids were accounted for in some measure.

Also noted in the comparison of means across conditions was the fact that (non-bid) EXTRA utterances were produced in insufficient number by more than half the participants involved. Given that such utterances contribute nothing in terms of how "control" is expressed in an interaction, they were not included in the ANOVAs conducted. The categories of SUM-UTTs, T-UTTs and C-UTTs were included in the ANOVAs, to determine how the total verbal output of dyads across instructional settings was constituted.

III) QUADRANT COMPARISONS

a) Quad 1 X Quad 2 : Under the formal lesson with staff condition (Quadrant 1), a grand total of 1470 utterances

across all ten teaching sessions were produced by the staff and client participants (SUM-UTT mean: 147). Staff members accounted for 1140 of the utterances produced during instruction (T-UTT mean: 114), which comprised 77.5% of the total talk produced in that quadrant. Clients contributed the remaining 330 utterances (C-UTT mean: 33), which comprised 22.5% of the total utterances produced. Of the 1140 total teacher utterances produced during formal game instruction, a total of 842 utterances were codeable as either a dominant or submissive bid of some type. Dominant bids were expressed in 791 of the 842 utterances, or in 94% of all codeable teacher utterances. Submissive bids were expressed in the remaining 51 codeable teacher utterances, making up the final 6% of the total 842 bids produced.

Of the 330 total client utterances produced during the gaming sessions, 151 were codeable as some form of dominant or submissive control type. Dominant bids were evident in 114 utterances, or 75% of all codeable client utterances, while submissive bids were evident in the remaining 37 codeable utterances, or 25% of the client speech sample.

In Quadrant 2, the formal lesson with peer condition, a grand total of 560 utterances overall were produced by all dyad members across ten observations (SUM-UTT mean: 56). Clients serving as instructors in these settings produced 297 of the total utterances (T-UTT mean: 29.7), accounting for 53% of all talk produced during peer formal lessons. Clients serving as task recipients produced the remaining 263 utterances (C-UTT mean: 26.3), which accounted for the

other 47% of the total utterances produced in Quadrant 2.

Client teachers (CTs) produced 239 codeable utterances from the total 297 utterances produced overall, as either dominant or submissive bids. This accounted for 80% of all CT talk produced during the peer lesson condition. Of that subtotal, 195 utterances (81.5%) were coded as some form of dominant control; the remaining 44 codeable CT utterances were expressed as submissive bids (18.5%).

Of the 263 utterances produced by client learners (CLs) during peer lessons, 134 were judged to be some form of dominant control bid. An additional 43 utterances were coded as submissive bids. In total, 177 utterances received some dominant or submissive bid rating, accounting for 67% of all CL talk produced.

(insert Table 5 here)

After running the statistical analyses, ANOVA results were examined to determine if any significant differences between variables across conditions resulted. Statistically significant findings that related to the issue of control were evaluated (refer to Table 4).

Primarily, it was noted that the overall amount of talking one encountered with non-peer dyads was significantly greater than the talking produced by peer dyads carrying out the same games ($F = 8.66$ **). It was further noted that nonretarded teachers produced significantly more utterances than did retarded instructors ($F = 23.5$ ***). Retarded recipients of instruction did not produce significantly

TABLE 5

NON-PEER vs. PEER FORMAL LESSONS

CONTRASTIVE PERCENTAGES OF DOMINANCE / SUBMISSIVENESS

| QUAD | T/C-UTTs(%) | CODED (%) | DOMINANT BIDS (%) | SUBMISSIVE BIDS (%) |
|---|---|---|---|---|
| 1 (T) | 1140 (77.5) | 842 (74) | 791 (94) | 51 (6) |
| 2 (T) | 297 (53) | 239 (80) | 195 (81.5) | 44 (18.4) |
| 1 (C) | 330 (22.5) | 151 (46) | 114 (74.5) | 37 (24.5) |
| 2 (C) | 263 (47) | 177 (67) | 134 (75.7) | 43 (24.2) |

KEY : (T) = TEACHER; (C) = CLIENT; T/C-UTTs = TEACHER/CLIENT UTTERANCES;
% = PERCENTAGE OF OCCURRENCE OF BID-TYPE

more utterances in either condition, factoring in the TIME co-variant.

Regarding measures of control that were expressed by the dyadic participants, client learners produced significantly more weak directive bids in the peer instructional interaction (Quad 2) than during the non-peer instructional setting (Quad 1) ($F = 5.36$ *); as well as significantly more control bids overall (SUMBID) in the peer lesson than in the non-peer lesson setting ($F = 4.54$ *).

The hypothesis that client learners in a peer setting would produce significantly more utterances overall than they would in a non-peer setting proved false in this study (C-UTT figures remained consistent across contexts). However, the prediction that client learners would engage in more dominant fashion in a peer lesson context as opposed to a non-peer lesson context was substantiated by these results. Not only were client learners able to express the D2 and SUMBID categories in significant measure during peer lessons, but they also exhibited the capacity for producing remaining dominant and submissive control bids as well. As posited, and subsequently substantiated by these results, client learners engaged more interactively with their "instructors" in the peer learning context, which may be a reflection of the increased collegial atmosphere, brought on by the factor of equal status between individuals in the interaction.

Additional findings indicated that nonretarded teachers employed significantly more strong directives than retarded

teachers (F = 5.03 *); more weak directives (F = 41.5 ***); a noted trend increase in the number of uninformed questions produced (F = 3.45 ~); and generally more control bid types (SUMBID) overall (F = 21.1 ***) than did retarded teachers involved in the same gaming tasks.

This finding of nonretarded teachers consistently producing more examples of each bid-type than retarded teachers was not surprising, given their position as instructional personnel at the day treatment facility, and subsequent familiarity with the job of "teaching". However, client teachers still-in-all exhibited the capacity for utilizing the parameters of control under investigation as well (though in non-significant measure), in order to carry the activity forward to its completion. Thus, retarded instructors were shown to produce the same types of control bids as nonretarded instructors in similar tasks, based on their noted ability at employing the dominant and submissive bids in question.

b) Quad 3 X Quad 4 : Under the joint problem solving condition involving peer participants (Quadrant 3), a grand total of 1763 utterances across all ten problem solving sessions were produced by both staff and client members (SUM-UTT mean: 176.3). Staff members accounting for 1180 of the total utterances (T-UTT mean: 118), or 67% of all talk produced. Client talkers made up the remaining 583 utterances (C-UTT mean: 58.3), or 33% of total talk produced in that quadrant.

Of the 1180 utterances produced by teachers during the non-peer joint problem solving condition, a total of 826 were codeable as either dominant or submissive bid categories. Dominant bids were evident in 684 (82.8%) of the codeable teacher utterances, while submissive bids made up the remaining 17.2% of codeable teacher utterances (142 bids).

Of the total 583 client utterances produced under this instructional condition, 295 received some dominant or submissive bid designation. Of that subtotal, 214 utterances were coded as some dominant form, comprising 72.5% of all client-produced codeable utterances. The remaining 81 codeable utterances obtained a submissive bid designation, making up the final 27.5% of all codeable client utterances.

In Quadrant 4, the informal peer interaction, a grand total of 728 utterances across all ten joint problem solving sessions were produced by the peer participants (SUM-UTT mean: 72.8). A total of 287 utterances were produced by the original (OLD) study participants (C-UTT mean: 28.7), while the remaining 441 utterances were produced by the (NEW) individual subjects who were paired with the initial members (T-UTT mean: 44.1). The original group accounted for 39.4% of the total utterances produced, while the new members accounted for the remaining 60.5%.

Of the 287 utterances produced by the original group of subjects, 183 (or 63.7%) were coded into either dominant or submissive bid categories. Of those 183 utterances, 136 received dominant bid designations (74.3%); and another 47 utterances were coded as submissive bids (25.6%).

Of the 441 utterances produced by the newly-recruited group of subjects, 224 utterances (or 50.7%) were codeable into either dominant or submissive bid categories. There were 159 dominant bid types (71%), and 65 submissive bids (29%) evident in the NEW group data.

(insert Table 6 here)

After conducting the statistical analyses, ANOVA results were evaluated to determine how the significant differences betweeen variables contributed to the issue of control in an instructional interaction (see Table 4).

Primarily, it was determined that the non-peer dyads engaged in joint problem solving (Quadrant 3) produced significantly more utterances overall than the peer dyads (Quadrant 4) in completing the same informal tasks ($F = 22.25$ ***). In addition, retarded clients engaged in the informal lesson context with non-peers produced significantly more client utterances overall than they did during the peer informal interactions ($F = 7.29$ *). Thus it can be seen that the non-peer informal instructional setting is more conducive to eliciting talk in general than the peer setting.

What can be concluded from these results is that the peer joint problem solving condition (Quadrant 4) is not the most egalitarian interaction of any of the four instructional cells as originally posited, if the significant incidence of overall utterances produced with non-peers is any indication. In addition, an examination of the summary

TABLE 6

NON-PEER vs. PEER INFORMAL LESSONS

CONTRASTIVE PERCENTAGES OF DOMINANCE / SUBMISSIVENESS

| QUAD | T/C-UTTs(%) | CODED (%) | DOMINANT BIDS (%) | SUBMISSIVE BIDS (%) |
|---|---|---|---|---|
| 3 (T) | 1180 (67) | 826 (70) | 684 (82.8) | 142 (17.2) |
| 4 (T) | 441 (60.5) | 224 (50.7) | 159 (71) | 65 (29) |
| 3 (C) | 583 (33) | 295 (51) | 214 (72.5) | 81 (27.5) |
| 4 (C) | 287 (39.4) | 183 (63.7) | 136 (74.3) | 47 (25.6) |

KEY : (T) = TEACHER; (C) = CLIENT; T/C-UTTs = TEACHER/CLIENT UTTERANCES;
% = PERCENTAGE OF OCCURRENCE OF BID TYPE

of bid-type measurements across quadrants (Table 3) revealed that, while not produced in significant measure, retarded clients were nonetheless still able to produce exemplars of all dominant and submissive bids when paired with their nonretarded partners. What this may indicate is that, for this particular condition at least, retarded adults may indeed benefit from other-regulatory strategies in producing measures of control in an interaction.

At the same time however, it should not be dismissed from the discussion that retarded subjects engaging in peer informal interactions were likewise able to produce exemplars of all the bid-types in question, though not to the same degree that they were able to do so when paired with nonretarded partners. While the peer informal instructional setting would not appear as facilitative as the non-peer instructional setting in eliciting the bid-types of interest, it still-in-all possesses that inherent quality that allows retarded individuals the opportunity for taking more control for themselves to self-regulate the activity.

Additional ANOVA findings indicated that the nonretarded teachers in Quad 3 produced significantly more strong directives ($F = 8.47$ **); more weak directives ($F = 12.08$ **); more uninformed questions ($F = 5.61$ *); and more combined control bids overall ($F = 23.95$ ***) than did their retarded counterparts (i.e. the NEW clients added to the equation) who were engaged in joint problem solving.

What these results may indicate for the nonretarded instructor is that they are more initiatory than retarded

subjects in expressing bids for control, and that perhaps they are not as egalitarian during joint problem solving as initially expected, if a high frequency of controlling bids in an interaction is an indication of one's authority therein. Recall that they were originally predicted to become less controlling of the interaction as they moved from the formal to the informal instructional setting, and were expected to engage in a more egalitarian fashion with their retarded counterparts. However, in light of the high incidence of dominant and submissive bids produced, nonretarded teachers appeared more likely to run and direct the show than allow for a coordinative, jointly constructed interaction. The only bid that suggested that greater egalitarianism was possible in the exchange was the uninformed question bid that reflected a more collegial position, i.e. one in which the individual showed no hesitancy in admitting ignorance as he/she attempted to obtain necessary information via use of a question.

c) QUAD 1 X QUAD 3 : For a description of total bids produced, and how those bids were distributed across the 1 X 3 quadrants, refer to the preceding discussion sections (a and b).

(insert Table 7 here)

Following the statistical analysis of the variables contained in these two quadrants, the resultant ANOVAs were examined to determine what significance the findings had to

TABLE 7

NON-PEER FORMAL vs. INFORMAL LESSONS

CONTRASTIVE PERCENTAGES OF DOMINANCE / SUBMISSIVENESS

| QUAD | T/C-UTTs(%) | CODED (%) | DOMINANT BIDS (%) | SUBMISSIVE BIDS (%) |
|---|---|---|---|---|
| 1 (T) | 1140 (77.5) | 842 (74) | 791 (94) | 51 (6) |
| 3 (T) | 1180 (67) | 826 (70) | 684 (82.8) | 142 (17.2) |
| 1 (C) | 330 (22.5) | 151 (46) | 114 (74.5) | 37 (24.5) |
| 3 (C) | 583 (33) | 295 (51) | 214 (72.5) | 81 (27.5) |

KEY : (T) = TEACHER; (C) = CLIENT; T/C-UTTs = TEACHER/CLIENT UTTERANCES;
% = PERCENTAGE OF OCCURRENCE OF BID TYPE

the issue of control. According to results obtained, it was determined that teachers engaging in formal lessons with retarded subjects produced significantly more weak directives than during joint problem solving (F = 13.36 **). However, they exhibited an increasing trend of more uninformed question bids during the informal setting than they did during formal game instruction (F = 3.79 ~). Retarded subjects in either condition did not exhibit significant findings with respect to the incidents of controlling bids produced, though they did show a consistent pattern of increasing their dominant and submissive bid usage as they moved from the formal to the informal instructional situation with their nonretarded counterparts (see Table 3; comparison of means across conditions).

For the nonretarded teachers in question, what these findings indicated was that they behaved in an expected fashion from one context to the next. Considering the heightened formality of the lesson context where there pre-existed a "game" agenda that required a genuine teacher effort to convey, the significantly greater incidence of the dominant bid was not unusual. Indeed, it was predicted that nonretarded instructors would engage in more dominant bid usage the more formal their teaching context became. Reciprocally, as sessions became less formal, it was predicted that nonretarded teachers would demonstrate a more submissive position in the interaction. Such was the case here, given the observation that Q2 bids were produced in significantly greater measure in the informal setting.

For the retarded subjects involved across conditions, these findings of non-significance do not dismiss the fact that the persons with retardation were able to produce dominant bids in the informal setting. An examination of the qualitative aspects of the data at this point would suggest that the informal lesson context is more facilitative in getting retarded individuals to employ different types of controlling bids, as these individuals were noted doing (see Qualitative discussions).

d) QUAD 2 X QUAD 4 : For a description of bid types and how they were distributed across Quadrants 2 and 4, refer to the previous discussion sections (a and b).

(insert Table 8 here)

An examination of the ANOVA results indicated primarily that peer dyads engaged in informal problem solving (Quadrant 4) produced significantly more utterances overall than in the formal lesson context involving peer members (Quadrant 2) ($F = 5.19$ *). It was further noted that OLD retarded individuals (the original group of ten selected for the investigation) produced more utterances overall in the informal setting than they did with client teachers in a more formal interaction ($F = 4.24$ ~). These findings provide support for the prediction made above that the informal lesson context involving peer participants would elicit more talk than the formal peer lesson context, given its more egalitarian nature, and the fact that participants

TABLE 8

PEER FORMAL vs. INFORMAL LESSONS

CONTRASTIVE PERCENTAGES OF DOMINANCE / SUBMISSIVENESS

| QUAD | T/C-UTTs(%) | CODED (%) | DOMINANT BIDS (%) | SUBMISSIVE BIDS (%) |
|---|---|---|---|---|
| 2 (T) | 297 (53) | 239 (80) | 195 (81.5) | 44 (18.4) |
| 4 (T) | 441 (60.5) | 224 (50.7) | 159 (71) | 65 (29) |
| 2 (C) | 263 (47) | 177 (67) | 134 (75.7) | 43 (24.2) |
| 4 (C) | 287 (39.4) | 183 (63.7) | 136 (74.3) | 47 (25.6) |

KEY: (T) = TEACHER; (C) = CLIENT; T/C-UTTs = TEACHER/CLIENT UTTERANCES;
% = PERCENTAGE OF OCCURRENCE OF BID TYPE

in the informal setting are not constrained in their communicative abilities on the basis of perceived differences between members in the dyad.

Additional findings of ANOVA testing indicated that client teachers (CTs) in Quad 2 produced significantly more weak directive bids than NEW clients added to the equation in Quad 4 ($F = 5.82$ *). Complementary to this finding, it was noted that Quad 2 client learners (CLs) likewise produced more weak directive bids during the formal lesson context than during the informal interaction involving NEW retarded participants ($F = 4.21$ ~). These findings support the predictions made that more examples of directive language in the form of dominant bids would be apparent in the formal lesson context. The formal lesson context is thus viewed as a conducive setting in eliciting dominant control measures, for both client teachers and client learners involved in the interaction.

A final result of ANOVA testing indicated that the original group of retarded subjects produced more control bids overall (SUMBID) in the informal lesson context (Quadrant 4) than they did in a more formal interaction involving client teachers (Quadrant 2) ($F = 3.37$ ~).

In light of what had been reported previously re: the validity of the formal context as a conducive setting for eliciting measures of control, this latest finding would appear counterindicative to the results being presented. However, it should be recalled that the informal lesson context involving peer participants was originally pre-

dicted to elicit not only dominant bids for control but submissive bids as well, given the factor of equal status among its members. Given this finding, it can be stated that retarded subjects are sensitive to the relaxed constraints of an informal setting, and are thus prepared to take advantage of opportunities for expressing control.

## IV. SUMMARY : QUANTITATIVE FINDINGS

Based on the findings derived from the preceding ANOVA investigations, it is apparent that the conditions of interlocutor status and instructional setting do influence how retarded subjects display measures of control in different learning situations. In most cases, the subjects in question produced both dominant and submissive bids for control in the interaction that were self-regulatory in nature, given that the bids were produced in like measure and kind across instructional conditions. However, it also appeared that retarded speakers at times demonstrated reliance on the regulatory routines of others, given that their ability to produce dominant and submissive bids in different situations was conditioned by the role and/or interlocutor in the interaction.

To summarize pertinent findings of ANOVA testing, it was noted how retarded subjects produced significantly more weak directives and overall bids for control with peers vs. non-peers in a formal lesson context (Quad 1 X Quad 2). They also produced more overall utterances with non-peers

vs. peers in an informal interaction (Quad 3 X Quad 4). Given that the factor of setting remained constant in these separate analyses, it was concluded that the significant findings were attributed to the influence of role relations in the interactions.

Additional findings indicated that retarded speakers produced more utterances overall and more examples of overall bid types in an informal setting vs. a formal one with peers (Quad 2 X Quad 4). In addition, subjects were observed producing more dominant controls (i.e. weak directive bids) with peers in a formal lesson context vs. an informal setting (Quad 2 X Quad 4). Given that the condition of role interactant remained constant in these comparative quadrants, it was concluded that the significance could be attributed to the influence of instructional setting.

What is not readily apparent from the quantitative analysis conducted to this point is why in some situations retarded subjects exhibit more reliance on other-regulatory routines in an interaction. Further, the quantitative treatment of the data does not help to explain how it is that retarded individuals are able to employ the control bids of note both explicitly (via use of direct statements and commands) and more implicitly (via use of indirect statements, question forms, modal verbs) to illustrate the range of usage and complexity they are able to employ in instructional interactions with one another and with non-peers. Such a discussion, conducted within a qualita-

tive framework, helps support the contention that adult retarded speakers are capable interactants in an instructional dialogue. In the absence of significant quantitative measures noted at all points in the investigation, the qualitative analysis will help to illustrate that retarded individuals can produce ALL the different types of control that nonretarded speakers do, only to a lesser degree.

## V. QUALITATIVE ANALYSIS

The following qualitative results section will be structured around a description of the dominant and submissive bids produced by retarded clients and nonretarded instructors, in order to provide some insight into what the different participants are capable of in their various interactions with one another. In so doing, some of the depth and complexity that members employ in their controlling maneuvers can be accounted for, since quantitative measurements alone are insufficient in detailing such communicative competence.

a) Strong Directives (D1) : To reiterate, strong directives are defined as initiatory utterances that compel the listener to carry out some action or to provide attention to a task. Throughout the instructional conditions tested, it was determined that both retarded and nonretarded persons were capable of expressing control via use of strong directive bids. In regards the ability of the

nonretarded teachers to produce such bids, this finding was not unusual, in that one could generally assume that teachers possess, at the very least, some practice with giving directions, which would make them the more likely group to express instructional language over retarded individuals who are generally not put into teacher role-playing situations at the day treatment facility. Nonetheless, it was determined in these observations that retarded speakers could express the same strong directive forms as instructional staff, though not to the same degree or frequency as their nonretarded counterparts.

Whenever teachers expressed a D1 bid, their intention was to provide instruction or direct attention to some presented task, examples of what Cazden (1988) called curricular language. When clients expressed a D1 bid, they did so at times to regulate the direction and flow of verbal directions or, in some cases, to request repetition of the task. The intentionality underlining the production of their bids was therefore felt to be qualitatively different from the intentionality forms expressed by the nonretarded teachers. However, this qualitative difference between speaker groups in the expression of strong directives was only apparent when retarded clients interacted with non-peers in a formal lesson context (Quad 1). In all other quadrants involving non-peers in an informal interaction (Quad 3), or peers in either a formal or informal context (Quads 2,4), retarded individuals were noted using the same intentionality forms as their nonretarded

counterparts. Some examples from the data follow:

1 Quad 1 Teacher-Produced D1 Bids (initiatory)

(T) : Look at the board carefully// (D1)
Cause you don't want me to win// right?/

(C) : No//

(T) : Why don't you just show me// Take some// (D1)
and show me the different ways you can win// (D1)

2 Quad 1 Client-Produced D1 Bid (regulatory)

(T) : Do you know how to play?//

(C) : I want you to show me// (D1)

(T) : You want me to show you?//

(C) : yeah//

3 Quad 1 Client-Produced D1 Bid (regulatory)

(C) : You'll have to explain this slowly to me// (D1)
So I know what I'm doing//

(T) : OK/ you got one step is to take out the Queens//

4 Quad 2 CT-Produced D1 Bids (initiatory)

(CT) : You go now// (D1)
(CL moves on board without speaking)

(CT) : Now you go// (D1)
(CL moves again without speaking)

(CT) : You go again// (D1)
(CL continues non-verbally for several turns)

5 Quad 2 CL-Produced D1 Bids (initiatory)

(CT) : You gotta go here//

Down here/ you gotta get 4 . in the box//

And if ya get 4 in the box/ you win the game//

(CL) : OK/ give me the red one// (D1)

Give me the red one now// (D1)

6 Quad 3 Client-Produced D1 Bids (initiatory)

(T) : Unscrew this a little bit//

(C) : You have to put this one in first// (D1)

Put that right there// (D1)

(T) : OK/ let's take a look//

OK/ You know what we have to do?//

(C) : You have to uh/ What are you doing?//

You have to . wait a minute// (D1)

You have to put that underneath// (D1)

7 Quad 4 Client-Produced D1 Bids (initiatory)

(NEW) : Here's a cup//

Go// (D1)

Brown/ go// (D1)

No wait// (D1)

White first/

(OLD) : Oh now you tell me//

You always tell me what to do//

8 Quad 4 Client-Produced D1 Bid (regulatory)

(NEW) : Now which way you want me to cut it?//

(OLD) : How about this way?//

(NEW) : Alright/ just tell me when to stop// (D1)

(OLD) : You can stop now//

(NEW) : Alright//

As the preceding examples help to illustrate, client speakers throughout the quadrants not only used strong directives to regulate the direction and flow of instruction to aid in their own comprehension of the task (examples 2, 3, 8), but also used D1's to provide instruction to their nonretarded partners (examples 4, 5, 6, 7). As such, they demonstrated the capacity for initiating instructional sequences and for controlling the interaction rather than serving a more regulatory role, a skill not previously exhibited in the non-peer formal interaction.

b) Weak Directives (D2) : Weak directives, as previously defined, are responsive utterances produced in conjunction with strong directives that, in turn, compel the listener to carry out some activity; utterances produced in the conduct of the activity that ensure the continuation of the activity itself; or utterances that reflect some curricular or activity-specific meaning. It was again noted that throughout the data both retarded and nonretarded speakers conveyed control in the various interactions via weak directive bid usage.

In analyzing the data across instructional conditions, it was noted that clients involved in the formal lesson

setting with non-peers (Quad 1) produced weak directive forms that were very explicit in nature. That is, their D2 forms consisted of only direct statements produced in response to teacher-initiated instructions, and were never comprised of either indirect statements or question forms that suggested compliance with the tasks presented. On the other hand, nonretarded teachers from the same quadrant produced not only the explicit forms of weak directives that retarded speakers employed, but also exhibited more implicit examples of the weak directive that were more suggestive in nature. As such, it was determined that the two speaker groups displayed qualitative differences in how they were able to express control via the use of weak directive bids.

The implicit forms in question that signalled control for the users of same included: suggestive questions, orienting questions, modal verbs, and utterances that contained either a temporal or locational cue to re-direct the focus of attention back to the task at hand. While retarded clients engaged in non-peer formal interactions were not observed using these variations of the weak directive bid, clients in the other instructional settings were, to varying degree. Minimal evidence of suggestive D2 bids was noted in the peer formal lesson context (Quad 2: one example), while the informal peer and non-peer conditions (Quads 3,4) proved more conducive to eliciting the forms in question. Examples of both explicit and more implicit weak directive bids from the data follow:

1 Quad 1 Teacher-Produced D2 Bid (explicit form)

(C) : So let's try it again// (D1)

(T) : OK/ we'll play one more game// (D2)

2 Quad 1 Client-Produced D2 Bid (explicit form)

(T) : Where should you put your piece now?//

(C) : Put it over there// (D2)

3 Quad 2 CT-Produced D2 Bids (explicit form)

(CT) : You're gonna hafta try to get 4 in a row// (D2)

(CL) : 4?//

(CT) : 4 in a row//

And I'm supposed to do the same// (D2)

I'm supposed to stop you// (D2)

So I'll stop you by blocking you// (D2)

4 Quad 2 CL-Produced D2 Bid (explicit form)

(CT) : Now I pick a card from you// (D2)

Is that card yours or mine?//

(CL) : That's yours// (D2)

5 Quad 3 Client-Produced D2 Bid (explicit form)

(T) : Well/ what do you think we need first?//

(C) : This//

(T) : Think that's what we need first?//

(C) : Yeah/ I'll put that in here// (D2)

6 Quad 4 Client-Produced D2 Bids (explicit form)

(NEW) : Now what do you want to do?//

[should I put] why don't you start off first?//

And then I'll start off second// (D2)

(OLD) : OK//

(NEW) : Give me the container//

I could always start off first// (D2)

And you could always start off second// (D2)

As the preceding examples illustrate, clients across quadrants are capable of producing explicit forms of the weak directive bid. It is additionally noted that retarded subjects serving in the capacity of either client teacher (CT) or client learner (CL) in Quadrant 2 are equally capable of producing the explicit weak directive form (examples 3 and 4). Thus, the ability to produce these explicit forms does not appear contingent on either the setting one engages in nor the role of the interactant within that setting.

An examination of teacher-produced suggestive forms of the weak directive bid within the data follows. As was previously discussed, certain question forms existed that suggested compliance with presented tasks. These questions, in turn, elicited some subsequent action on the part of the listener. Such utterances were not identified as either informed (Q1) or uninformed (Q2) question types, as they did not mandate a verbal response to either a fact-finding question or request for unknown information. Rather, such

questions implied that a task-related action be carried out to ensure continuation of the activity itself.

1 Quad 1 Teacher-Produced D2 Bid (implicit : question)

(T) : If you get one in each of the corners/

(C) : Yeah?//

(T) : Wanna put that one in there?// (D2)

(C) : OK// (client places piece)

(T) : You can win//

2 Quad 1 Teacher-Produced D2 Bid (implicit : question)

(T) : Neither one of us could get 4 in a row//
OK/ but it's better to stop a person from winning//
then to let them beat you/ right?//

(C) : Right//

(T) : You wanna go over this one more time?// (D2)

(C) : OK// (they begin another demonstration game)

In addition to these question forms soliciting compliance, other questions were used to serve an "orienting" capacity, where the teacher producing the utterance sought to re-direct attention to a given task. Posed as questions, these utterances aided the listener in focusing in on an aspect of the game that might have been missed. Thus, they were considered weak directives forms.

3 Quad 1 Teacher-Produced D2 Bids (implicit : orienting)

(T) : OK/ do you notice something though?// (D2)

[look at my] [before you make that move]

You sure you want to make that move?// (D2)

(C) : yeah//

(T) : Look/ if you make that move/

Know what I'm doing?// (D2)

I'm gonna put mine here// and I'm gonna win//

Additional weak directive utterances came in the form of modal verbs that were used to imply that an action be taken. As seen, modals such as WOULD, COULD or SHOULD, when used in the context of "how a move ought to be played", made an appeal to the listener to follow through with some indicated action.

4 Quad 1 Teacher-Produced D2 Bids (implicit : modals)

(T) : OK now/ one thing too when you're moving/

(C) : Yeah?//

(T) : You should look at what I'm trying to do// (D2)

(C) : Yeah//

(T) : Try to figure out what I'm trying to do too// so/

(C) : OK//

(T) : I would put that here to block me// OK?/ (D2)

(C) : Yeah// (places piece on mat board)

(T) : OK/ but that would only give you 2 straight//

But if you look over here/

(C) : Yeah?//

(T) : You could get 4 in a row// (D2)

and you'd win//

(C) : Yeah//

A final sub-category of teacher-produced weak directives in Quadrant 1 included statements marked by either temporal or locational cues (temp / loc Q's) which served to re-direct listener attention to some previously unseen situation (similar to the question-orientation procedure noted above), or which served to cause cessation of an action taken. Again, such statements, while indirect in form, at the same time functioned to accomplish some action in the telling.

5 Quad 1 Teacher-Produced D2 Bids (implicit : temp/loc Q)

(T) : In Tic Tac Toe if you get 3 in a row/ you can win//
Or if you get 3 in an angle in any direction/
you can win//

(C) : Yeah// (while manipulating pieces on adjacent grid)

(T) : OK/ we'll go there in a second// (D2) (temp Q)
I just want to show you over here// (D2) (loc Q)

(C) : OK Kevin//

Examples of client-produced weak directive forms that were more implicit or suggestive in nature follow:

6 Quad 3 Client-Produced D2 Bid (implicit : question)

(T) : See where we have to cut about//

(C) : [How about right over] How about right here?// (D2)

(T) : Right about there?//

(C) : There//

7 Quad 4 Client-Produced D2 Bid (implicit : question)

(NEW) : You just have to have the knack of it//

Now which way you want me to cut?//

(OLD) : How about this way?// (D2)

(NEW) : Oh like this you mean//

(OLD) : Yeah//

8 Quad 3 Client-Produced D2 Bid (implicit : orienting)

(T) : OK/ this is what we're gonna do//

This is what we go by//

(C) : Now know what I have to do?// (D2)

I'll hafta put it in a frame//

9 Quad 4 Client-Produced D2 Bid (implicit : orienting)

(NEW) : This could turn out good maybe//

(OLD) : mm-hmmm//

(NEW) : Here/ you know what I did?// (D2)

I put in two of everything//

10 Quad 2 CL-Produced D2 Bid (implicit : modal)

(CT) : You have to find the same one// (D2)

(CL) : You could match the same one// (D2)

Doesn't hafta be the same// (D2)

11 Quad 3 Client-Produced D2 Bids (implicit : modal)

(T) : OK/ you pick which horse you wanna use//

(C) : That could be good// (D2)

This could be good// (D2)

12 Quad 4 Client-Produced D2 Bid (implicit : modal)

(OLD) : You could put it in my cup Sue// (D2)

(NEW) : What?/ The dirt?//

(OLD) : Yeah/ that's it//

As these examples illustrate, D2 bid types are varied in nature and, contrary to what was observed with D1 bids, were not produced by both dyadic members in the non-peer formal lesson context (Quad 1); only staff members in the interaction contributed such suggestive forms. However, in other instructional settings, retarded individuals did exhibit the ability to produce implicit forms of the weak directive. They exhibited limited abilities with suggestive forms in the peer formal context (Quad 2), where only one example, a modal form, was located throughout the data (example 10). However, they were able to produce suggestive questions (examples 6 and 7), orienting questions (examples 8 and 9) and modals (examples 11 and 12) in both informal instructional contexts (Quads 3 and 4).

No evidence for the use of temporal or locational cues to mark an implicit D2 bid was apparent in any of the client-produced utterances across quadrants. What this suggested for the present investigation was that: either the temporal / locational cues were unique to nonretarded speakers; or the noted example from the data was unique to

the individual nonretarded speaker in question. In point of fact, the example provided in the above discussion (example 5) was one of only a small handful of the bid across the body of data, produced as it was by a single nonretarded instructor. A further discussion on the effects of individual differences on the ability one has to express control will be taken up again in the final chapter.

What these examples do suggest is that, outside either a non-peer or peer formal instructional setting, retarded speakers can employ a wider range of communicative behaviors in order to demonstrate control in the instructional interaction. The persistent ability of retarded speakers to exhibit both forms of weak directives (explicit and implicit) during informal teaching with both peers and non-peers may be a reflection of the more egalitarian setting in which the instruction occurs, which in turn would commend the informal setting as a more facilitative context for eliciting these measures of control.

c) Uninformed Questions (Q2) : Uninformed questions, as previously defined, are utterances that request needed information and that are dependent on the respondent for supplying it; or utterances that request opinions. Nonretarded teachers used the uninformed question bid sparingly during their formal lesson interactions with retarded individuals but demonstrated an increasing trend in its usage as the setting with retarded persons became more egalitarian. Their Q2 bids during formal lessons were, for

the most part, located at the beginnings of sessions to determine whether clients possessed knowledge of the games about to be presented.

1 Quad 1 Teacher-Produced Q2 Bid (initializing sequence)

(T) : This is Super Tic Tac Toe//
You ever play regular Tic Tac Toe?// (Q2)

(C) : Yeah/ I've done that//

2 Quad 1 Teacher-Produced Q2 Bids (initializing sequence)

(T) : I'm gonna teach you a card game named Old Maid//

(C) : OK//

(T) : OK/ first take out three Queens// and leave one//
Which Queen you wanna leave?// (Q2)
Which is your favorite?// (Q2)

(C) : Spades//

Another application of teacher-produced uninformed question types not used restrictively at the beginnings of lessons was the solicitation of information needed for the activity; or the inquiring into the abilities of retarded persons themselves.

3 Quad 3 Teacher-Produced Q2 Bids (missing info)

(T) : OK/ so what do you think we have to do?// (Q2)

(C) : I don't know//

(T) : What is underneath that material?// (Q2)

(C) : More material//

(T) : **There's nothing left in your box?// (Q2)**

4 Quad 3 Teacher-Produced Q2 Bids (missing info)

(T) : **Can you use scissors?// (Q2)**

(C) : **Sure//**

(T) : **Good/ Just cut around here//**

**Now we're gonna do some gluing//**

**You like to glue?// (Q2)**

(C) : **OK//**

Still other applications of Q2 bids by teachers came in the forms of requesting opinions regarding either a separate activity, or the well-being of listeners themselves. In these examples of teachers asking subjects "what they thought" about something outside the testing area, or "how they were doing", instructors departed from a routine they had established during formal instruction (Quad 1), where they engaged only minimally in nontask-related talk. Indeed, teachers only engaged in such manner when induced to do so by clients seeking personal attention (example 5 below), but refrained from it by-and-large during the formal lesson context.

5 Quad 1 Teacher-Produced Q2 Bids (nontask-related talk)

(C) : **Where is Jim?// (Q2)**

(T) : **Up in the AP room//**

(C) : **Is he gonna be here Monday too?// (Q2)**

(T) : **Sure// Are you gonna be here Monday?// (Q2)**

(C) : Yeah// When is your vacation Lisa?//

(T) : August 14// When is you vacation?// (Q2)

(C) : uh .... I don't know//

6 Quad 3 Teacher-Produced Q2 Bid (nontask-related talk)

(T) : Yeah/ the Gap program has lots of Rec activities//

(C) : yup//

(T) : You do dancing and things like that there?// (Q2)

(C) : Yup/ and I do that very good//

7 Quad 3 Teacher-Produced Q2 Bid (nontask-related talk)

(Teacher refers to camera while working on craft project)

(T) : What do you think about being a movie star?// (Q2)

(C) : Alright// Bob's proud of me Meryl//

Regarding client speaker abilities in expressing the uninformed question bid, it was noted that certain Q2 bids were employed in a fashion similar to the one exhibited by nonretarded speakers in their interactions with subjects, i.e. the beginnings of sessions, in order to ascertain one's responsibility in the setting or to establish common knowledge first before embarking on the task. Of interest was the observation that such initializing bids were not produced by retarded speakers in either of the non-peer interactions conducted (Quads 1 and 3), though the bids were apparent when subjects interacted with peer participants. In the formal lesson with peer setting (Quad 2), two examples of an initializing Q2 sequence were noted; in the

informal peer instructional interaction (Quad 4), six of the ten taped sessions contained some form of Q2 bid to initiate the interaction.

1 Quad 2 CT-Produced Q2 Bid (initializing sequence)

(CT) : This game is called Tic Tac Toe//
Now you wanna go first?// (Q2)
(CL) : Yeah//
(CT) : Go ahead//

2 Quad 2 CL-Produced Q2 Bid (initializing sequence)

(CL) : Where I hafta go?// (Q2)
(CT) : You gotta go here//
Down here/ You gotta get four . in the box//
And if ya get four in the box/ you win//

3 Quad 4 Client-Produced Q2 Bids (initializing sequence)

(NEW) : I don't know how to do this//
Do you?// (Q2)
(OLD) : um/
(NEW) : Uh/ who's gonna cut first?// (Q2)
(OLD) : You can do it//

Other examples of client-produced uninformed question bids were likewise produced in a manner commensurate with nonretarded teacher-produced forms, i.e. they were used to solicit missing information in order to follow-through on a designated course of action. Examples follow:

4 Quad 1 Client-Produced Q2 Bids (missing info)

(T) : These pairs are important//

They can tell us who's gonna win the game//

(C) : So I hafta do the same?// (Q2)

(T) : uh huh// (affirmation) I have 2 Kings//

I don't want to look at your hand to help you//

(C) : Well/ do I put down [the same] spades too?// (Q2)

(T) : Whatever you have two of// I bet you got alot//

(C) : How about a 4 and a 9?// (Q2)

: Is that good?// (Q2)

(T) : A 4 and a 9 are different numbers//

5 Quad 2 CT-Produced Q2 Bid (missing info)

(CT) : Now I pick a card from you//

How many cards you have left?// 2?/ 1?/ (Q2)

Mine is the card from here//

(CL) : That's yours//

6 Quad 2 CL-Produced Q2 Bids (missing info)

(CT) : Well/ there's no match//

(CL) : No match//

(CT) : OK//

(CL) : So what do we do with it?// (Q2)

Put it on the side?// (Q2)

(CT) : Yeah/ see I knew there's no match//

7 Quad 3 Client-Produced Q2 Bids (missing info)

(T) : What's on top of this?//

What kind of thing?//

(C) : Glass?// (Q2)

(T) : No/ there's no glass// Take a look at it//

What's on top of here?//

No/ on the whole thing//

What's around it?//

(C) : What is this called?// (Q2)

I don't know//

8 Quad 4 Client-Produced Q2 Bids (missing info)

(NEW) : Do you want to do it with scissors?// (Q2)

Or do you just want to cut it off?/ (Q2)

(OLD) : I want to cut it off//

(NEW) : Is there a scissors in there?// (Q2)

(OLD) : Yes/ there's a scissors in there//

Another example of client-produced uninformed question bidding that was similar in kind to bids made by nonretarded speakers was the use of Q2 forms as off-topic markers of informality that were nontask-specific. Clients were noted using this type of uninformed questioning across all four instructional contexts, though fewer clients expressed the nontask-related function in formal settings (one client in Quad 1; three clients in Quad 2), than in informal instructional settings which elicited more examples of the Q2 bid (six clients in Quad 3; seven clients in Quad 4). These utterances, usually concerned either with the location or well-being of another individual from the day treatment

program, constituted a submissive form of control in that they were conducive to having the listener quit the activity temporarily in order to respond.

9 Quad 1 Client-Produced Q2 Bids (nontask-related)

(T) : Pretty cards/ aren't they?// (said while shuffling)

(C) : uh huh//

(T) : I got them really cheap// two for a dollar/

(C) : Who's working in your classroom?// (Q2)

(T) : Jim//

(C) : Where is Jim?// (Q2)

(T) : Up in the AP room//

(C) : Is he gonna be here Monday too?// (Q2)

(T) : Sure//

10 Quad 2 CT-Produced Q2 Bid (nontask-related)

(CT) : I got a annual today too//
When is that meeting Ron?// (Q2)

(CL) : What meeting?//

(CT) : Annual/ annual//

(CL) : I don't know//

11 Quad 2 CL-Produced Q2 Bid (nontask-related)

(CL) : Tic Tac Toe// I win//

(CT) : Alright Keith//

(CL) : You ever go to the beach before?// (Q2)

(CT) : No//

12 Quad 3 Client-Produced Q2 Bids (nontask-related)

(T) : OK/ so cut it carefully//

(C) : Victor coming in today?// (Q2)

(T) : No/ Victor is on vacation//

(C) : How long does he have?// (Q2)

(T) : How long does he have?// He's got one more week//

13 Quad 4 OLD Client-Produced Q2 Bids (nontask-related)

(NEW) : I'm going on vacation//

(OLD) : You are?// (Q2)

Where are you going?// (Q2)

(NEW) : You heard of Las Vegas/ haven't you?//

(OLD) : No I haven't//

14 Quad 4 NEW Client-Produced Q2 Bids (nontask-related)

(OLD) : I had a fight with my mom today//

(NEW) : And what happened?// (Q2)

(OLD) : My mom yelled at me for no reason//

(NEW) : This morning?// (Q2)

(OLD) : Yeah//

(NEW) : What your mom say?// (Q2)

(OLD) : I don't want to tell you//

Finally, in a different expressive manner, uninformed question bids were used by retarded adults as a means of "checking", to verify something said by the other speaker in the interaction. These verifying questions usually were produced as imitated or near-imitated responses to some-

thing said by the other member, and sometimes paired with an appropriate answer supplied to the initial question posed. The pairing of the answer with the question by the same speaker only occurred in non-peer instructional settings (Quads 1 and 3), while in the peer contexts (Quads 2 and 4), retarded clients did not produce the subsequent answers to their own imitated response forms. This would suggest that the non-peer role relationship between speakers is more conducive to eliciting a complete "verification sequence", where both the imitated utterance and the answer unit are produced by the same speaker in sequential order.

This type of uninformed question bid was only minimally noted in the instructional dialogue of nonretarded speakers. One example of a teacher-produced verification sequence was noted in the non-peer informal instructional setting, while none were observed in the formal lessons.

Such utterances conveyed a sense of active client participation with a task, as they attempted to assist themselves in the comprehension of some previously-produced question or directive via the verification sequence. As such, these utterances constituted a form of submissive control, since they called attention to certain aspects of instruction which needed further confirmation.

15 Quad 3 Teacher-Produced Q2 Bid (verification sequence)

(C) : Victor coming in today?//

(T) : No/ Victor is on vacation//

(C) : How long does he have?//

(T) : How long does he have?// (Q2)

He's got one more week// (answers own question)

16 Quad 1 Client-Produced Q2 Bid (verification sequence)

(T) : Which Queen you wanna leave?//

Hearts/spades/diamonds/clubs/ What's your favorite?//

(C) : Which one I wanna leave?// (Q2)

Spades// (answers own question)

17 Quad 3 Client-Produced Q2 Bid (verification sequence)

(T) : Alright/ so what goes first?//

According to that picture?/

(C) : According to that picture?// (Q2)

White gravel// (answers own question)

18 Quad 2 Client-Produced Q2 Bid (verification)

(CT) : You gotta get four in the box//

(CL) : Four in the box?// (Q2)

(CT) : Yeah/ four//

19 Quad 4 Client-Produced Q2 Bids (verification)

(NEW) : Do some of the other one//

Then I'll take it from there//

Then shift it over to me//

(OLD) : The other one?//(Q2)

(NEW) : Yeah/ we'll show him with the plant//

.... No// and another one//

(OLD) : Oh another one?// (Q2)

(NEW) : No// of the pink//

(OLD) : Pink?// (Q2)

## VI. SUMMARY : QUALITATIVE FINDINGS

Thus provided with the preceding qualitative analyses of the strong directive, weak directive, and uninformed question bids of retarded and nonretarded speakers in various instructional interactions, one can begin to envision the depth and complexity that controlling utterances possess, and can gain a finer appreciation of what speakers can do in an instructional context that he/she may not have developed in the presence of a quantitative description alone.

At the same time, one can begin to understand how the variables of role and setting in an interaction play major parts in the contribution of control that is exercised by the participants in the different learning situations. In the chapter which follows, a discussion of the individual contributions of these variables will again be taken up, as they relate to the issue of control that is exercised by both retarded and nonretarded speakers. In addition, the issue of individual speaker differences which relates to the obtaining of control will be taken up. Based on these differences in personality, one will be able to account for those particular persons who seem able to exercise some measure of dominance and control in an interaction, regardless of role and setting condition.

# CHAPTER IV : DISCUSSION

Based on the results of the quantitative analysis conducted, it was concluded that adults with mental retardation were not always able to display control with different speakers in different instructional settings. While not always producing utterances in sufficient quantity to compare the performances of contrastive groups, adult retarded speakers did nonetheless exhibit both depth and complexity in their expression of dominant and submissive bids for action and attention. A separate qualitative analysis of the database revealed a sensitivity that the retarded speakers had for the independent variables of instructional setting and interlocutor role.

## I. THE EFFECT OF SETTING ON CONTROL

Adults with mental retardation interacting with non-peers in both a formal and informal instructional setting failed to produce significantly more utterances during joint problem solving in comparison to utterances produced by them during formal lessons. Further, they failed to produce significantly more strong or weak directives in the joint problem solving situation as predicted; neither did they produce significantly more uninformed question bids in the non-peer formal lesson interaction. Thus, the data generated by these speakers failed to carry out predictions made concerning differences that were expected of them

between instructional settings with their nonretarded interlocutors (see Table 1 predictions A1, A2 and A3).

However, a qualitative analysis of the obtained database indicated that retarded speakers in a joint problem solving situation changed in their manner of expressing the bid-types marking control in the informal lesson context. They used stronger directives with their nonretarded participants, something they were not observed doing in the formal lesson with non-peer context. They thus demonstrated the capacity for facilitating an interaction and not merely serving a regulatory, i.e. "gofer" role. (Note: The term "gofer" is defined as an employee who runs errands; it is generally viewed in a demeaning light with low status attachments. Implicit in this definition is the fact that gofers must always be available to the employer in a situation, and must perform whatever duties the employer mandates. Gofers themselves do not mandate nor initiate, they carry out.)

Retarded subjects became more suggestive or implicit as well, in the conveyance of controlling bids to accomplish tasks in the non-peer joint problem solving situation. They displayed question forms, orienting statements and indirect utterances in the form of modal verbs, to communicate instructions to their nonretarded partners in the informal lesson setting, which was not the case in the formal lesson context. In the formal instructional situation, retarded speakers produced no such implicit weak directive bids; their expression of the weak directive in that context

appeared conditioned by the influence of preceding strong directives which were produced (in significant measure) by the nonretarded teachers in the formal domain.

Retarded subjects in the role of teachers in the formal lesson context did not produce significantly more utterances overall than did their peers added to the joint problem solving context, though they were observed producing significantly more dominant bids (weak directives) than the peers in joint problem solving. Thus, the client-teacher data did not substantiate the predictive claim made about these speakers concerning overall utterance production (Table 2 prediction A1), but the data did prove the claim regarding greater dominance of these subjects in comparison to their peers in the informal setting (Table 2 prediction A2).

Retarded subjects as learners in the peer formal lesson context, on the other hand, produced a proportionately lower number of overall utterances than they did in the joint problem solving context. This data thus substantiated the predictive claim made concerning the amount of talk that subjects as learners would contribute in the contrastive situations (Table 2 prediction B1). In addition, clients as task learners contributed proportionately more weak directive bids, or dominant bids for control, in the teaching context than they did in the informal lesson setting. However, as initially posited, this group as learners was expected to be significantly more submissive in the formal context than in the informal setting. Thus,

the data of client-learners in the peer formal lesson interaction failed to substantiate the predictive claim made concerning client-learner controlling abilities (Table 2 prediction B2).

As it turned out, the weak directive forms that were produced in significant number by the retarded teachers and retarded learners in the peer formal lesson context were, qualitatively, more explicit in nature and generally lacked the suggestive quality inherent to more implicit weak directive bids. (As noted in Chapter III, only one example of an implicit weak directive bid was located in the entire Quad 2 peer formal lesson database.) Such an observation would indicate that a formal lesson setting elicits more direct language on the parts of retarded speakers, and suggests that clients are more straightforward in their direction-giving to peers. They are not given to employing prompts of an indirect or connotative nature in peer formal interactions as nonretarded instructors are want to do in formal settings. While they do exhibit a dominant position in the interaction by virtue of the weak directive control bids used, they simultaneously appear "stiff" and directorial in their instruction giving, since their controlling utterances do not display any of the suggestiveness or implicitness that nonretarded speaker utterances convey.

In the joint problem solving condition, subjects produced proportionately more utterances overall than they did in formal lessons. In addition, the original retarded subjects in this informal setting contributed proportionate-

ly more controlling bids overall than they did as client-learners in the peer formal lesson context. On the other hand, retarded peers in the informal lesson context did not produce significantly more bids overall than did the retarded teachers in the formal lesson setting. Thus, the data produced by the combined members of the peer joint problem solving setting substantiated the prediction that was expected of the dyad in the informal interaction (Table 2 prediction C3); and original subject data fulfilled the prediction made about overall bid use (Table 2 prediction C4). New retarded peer data, conversely, did not substantiate the prediction made concerning these speakers' overall bid use (Table 2 prediction C5).

A qualitative analysis of these obtained results indicated that the peer joint problem solving context was more conducive to eliciting a range of explicit and implicit bid types designed to exercise control than was noted in the peer formal lesson setting. As cited above and in Chapter III, retarded persons engaged in informal instructional interactions exhibited a wider range of initiatory strong directives and suggestive weak directives in their controlling bids with peer participants, demonstrating not only the capacity for directing an instructional sequence (and not merely serving a more regulatory role), but also displaying some of the same subtlety and complexity that was evident in nonretarded instructors' interactions with retarded persons.

Qualitatively, the condition of setting also influenced

the degree to which retarded individuals produced submissive measures of control, i.e. uninformed questions (though not to a significant degree, as ANOVA testing indicated). The greater the informality of the setting (in both peer and non-peer configurations), the increased likelihood that retarded adults would produce uninformed questions that related not only to task considerations, but also to questions concerning the status or condition of the well-being of others (one example of a retarded speaker producing non-task related talk in Quad 1 and three clients in Quad 2, the formal lesson contexts; vs. six clients in Quad 3 and seven clients in Quad 4, the informal contexts). Conversely, the formal peer and non- peer settings, as noted in Chapter III, proved more conducive to eliciting question forms that probed for missing information necessary for the completion of presented tasks.

Nonretarded participants in the different instructional cells were likewise influenced by the setting in which they interacted. These personnel were noted to produce significantly more dominant bids for control, in the form of weak directives, the more formal the setting became. Reciprocally, they demonstrated more submissiveness in their interactions with retarded partners, via use of uninformed questions, as the informality of the teaching context increased. Thus, the predictions made of nonretarded teacher talk across instructional settings (Table 1 predictions B2 and B3) were substantiated by these results. The nonretarded speaker group, however, did not produce significantly

more utterances overall during formal lessons than during joint problem solving, as predicted, so the data failed to fulfill this expectation (Table 1 prediction B1).

No surprises were evident in the fact that nonretarded speakers employed a more dominant position during the formal lesson context. Of interest, however, was the observation that this group employed the same types of strong and weak directives in each of the formal and informal instructional interactions, indicating that the independent variable of setting had a minimal influence on how these teachers conducted themselves from one condition to the next. A possible account for this is offered in a following section of the discussion chapter on pre-conceptions about control.

On the other hand, it was noted that very few of the nonretarded teachers' uninformed question bids were concerned with topics that were not task-related in the formal lesson context. They became increasingly cordial with the retarded dyad members in the informal setting, and employed more uses of nontask-related Q2 bids to address issues of a more personal nature. The informal instructional setting would thus appear to be influential in accounting for these observations of increased egalitarian behavior in the interactional styles of the nonretarded speakers.

In summary, the instructional setting indeed appears influential in determining how nonretarded interactants exercise control in a teaching context. Generally, it was noted that nonretarded teachers displayed more dominance in the formal interaction and exhibited more submissiveness as

the informality of the setting increased. Taking into account the qualitative findings, retarded speakers interacting with nonretarded teachers exhibited an opposite effect; they displayed more submissiveness (non-initiatory; non-suggestive) in formal non-peer interactions but became increasingly dominant (initiatory; suggestive) as the setting changed.

Observations made of peer instructional interactions revealed that retarded subjects employed a significantly more dominant position in the formal peer context via use of weak directives. Qualitatively, they assumed a more straightforward posture in their formal lesson interactions with peers but allowed more of their personalities to emerge in the informal setting, displaying more suggestiveness in their weak directive usage in joint problem solving.

## II. THE EFFECT OF INTERLOCUTOR ROLE ON CONTROL

Retarded subjects as learners interacting with peers in a formal lesson setting did not produce significantly more utterances overall than they did with staff in similar lessons, but they did produce significantly more weak directives and overall bids for control with peers than non-peers during formal lessons, implying that greater dominance in the interaction was made possible by the factor of interlocutor role. These data thus substantiated predictions made of these speakers concerning their dom-

inance in the interaction (Table 2 prediction B4), but did not provide evidence to support the prediction concerning overall utterance production (Table 2 prediction B3).

Based on the qualitative analysis conducted, it was determined that the retarded persons serving as learners maintained a more regulatory position in their expression of strong directives with non-peer interactants, but demonstrated an increasingly more initiatory posture with peers during formal lessons. That is, examples were noted in the peer formal lesson setting where retarded learners told other retarded speakers what to do in directive fashion in order to complete the task. In contrast, retarded learners did not direct nonretarded instructors to carry out tasks in the non-peer formal setting but used their strong directives to regulate the activity for themselves, i.e. to slow it down or to have instructions repeated.

Client-learners further enhanced their dominant position with peers in the formal setting by employing proportionately more weak directives that were somewhat suggestive in nature (only one noted example of an implicit form evident in the data). The majority of their D2 bids utilized with peers in the formal setting were for the most part stated in explicit fashion and did not contain indirect instructional prompts.

The variable of role relationship also had an effect on how adult retarded speakers employed the uninformed question bid, as determined by the qualitative analysis. They used questions at the beginnings of sessions with peers to

determine what knowledge those persons possessed prior to the beginning of the task, but refrained from using the initializing question form to determine nonretarded speaker knowledge. Further, in non-peer formal interactions, retarded clients produced complete "verification sequences", or those two-part utterances that began with an imitated version of a question or statement initiated by the other speaker, followed by a self-produced answer to the question produced. In the peer formal lesson context, retarded speakers produced similar Q2 bids that functioned to verify something that was said beforehand, but which did not include the second half of the two-part sequence.

Retarded subjects in the joint problem solving situation with peer interactants did not produce significantly more utterances than they did in the non-peer informal lesson setting. In fact, the opposite finding was obtained; that clients in non-peer interactions spoke significantly more than they did in peer interactions. In addition, the retarded subjects did not display greater dominance in their informal interactions with peers than they did in the same settings with staff members. Thus, these data did not carry out expectations made of these speakers concerning either overall utterance production (Table 2 prediction C1) or demonstrated dominance in the interaction (Table 2 prediction C2).

A qualitative analysis of the data indicated that while retarded individuals employed the same forms of strong and weak directives in each of their non-peer and peer

interactions, thus indicating a comparable measure of control in either interaction, they were also noted in the non-peer informal setting not to produce those initializing question forms at the beginning of a session to determine their interlocutor's knowledge base. Conversely, they did employ these questioning bids within the peer informal context. Viewing this finding in conjunction with the findings just noted concerning their uses of dominant control bids, it was concluded that retarded individuals showed signs of being more submissive in their dealings with nonretarded interactants in the informal setting. This determination was reached based on the notion that questioning bids of the sort described would only be used in situations where the user felt at liberty to produce such an utterance. These data suggested that retarded subjects felt less "at ease" with non-peers, thus refrained from asking questions that might be construed as demeaning to the question's recipient (a possible scenario: "Do I know how to do the activity? Of course I know how to do the activity!").

Nonretarded teachers as a group did not appear influenced by the condition of the role variable. However, considering the fact that in each setting they participated in, nonretarded speakers interacted only with retarded individuals (Quads 1 and 3), the present study as designed was not geared to evaluating the influence of role on the ability of the nonretarded teacher population to exercise control; there were no contrastive groups of speakers for

the teachers to interact with which would allow such comparisons.

Further examination of the data indicated that individual differences were exhibited by certain members of the retarded and nonretarded groups of study participants, that provided additional insights into how control was exercised by those members in the different instructional settings. These issues will be taken up in the following discussion section.

To summarize the findings of interlocutor role and the influence it has on facilitating control in an interaction, it can be concluded that retarded speakers are more dominant in their dealings with peers and more submissive in their non-peer interactions. These findings are evident across both peer and non-peer formal lesson boundaries. A qualitative treatment of the data would suggest further similarity in the informal lesson contexts involving both peer and non-peer interactants. The implication is that it is indeed the status of the interlocutor's role in the interaction that determines the degree to which retarded subjects employ either a dominant or submissive stance.

## III. THE CONTRIBUTION OF INDIVIDUAL DIFFERENCES

Having presented the quantitative and qualitative evidence to support both setting and role as contributing factors in one's controlling an interaction, it should also be noted that certain individuals in the study demonstrated

aspects of behavior that set them apart from the group they had membership with. They demonstrated individual speaker differences that resulted in the observation that some of them acted less "teacher-like" or less "learner-like" in their dealings with others, which in turn affected how their interlocutors would respond to them. It further affected how control was obtained by both members within the dyad where such observations were made.

Data revealed that in the peer formal lesson context, individual retarded speakers placed in the role of "learner" made attempts to take over the interaction and impose their own set of regulations within the setting. As such, they were observed making more initiatory moves in a situation where that type of interactive style would be more expected of the "teacher" in that setting. Examples follow:

1 Quad 2 CL-Produced D1 Bids

(CT) : I'll deal them//

(CL) : Come on Penny// I'll deal them//
Give me the cards// (D1) Give them// (D1)

(CT) : OK// (speaker resignation (?))

(Later in game, after CL has taken all pairs for self)

(CL) : I'll get 3's/ 5's/ 9's/ all 4's/ no 10's, huh?/
OK/ all 6's/ Alright/ give me the last 8// (D1)
Uh/ give me the last King you got// (D1)

2 Quad 2 CL-Produced D2 Bids (and D1 Bid)

(Before CT speaker has had chance to provide rules)

(CL) : Why don't you give me some cards// (D2)

Then we could match them// (D2)

(CT) : What you gotta do is take out the pairs here//

(CL) : Alright/ why don't you give me some cards// (D2)

This way I could [you know] make pairs// (D2)

(CT) : Alright/ here// (speaker resignation (?))

(CL) : Why don't you take some// (D2)

And I'll take some// (D2)

You take these// (D1)

As these examples help to illustrate, the initiatory moves made by particular CL clients prevented their corresponding CT clients from providing instruction, thus causing them to miss opportunities for exhibiting control in the interaction. At the same time, these particular CT clients appeared resigned to the fact that their interactants would dominate the lesson and so assumed a more submissive role in the dyad.

In other examples from the client database, some individuals demonstrated a stronger dominant role in the interaction where more collegiality between speakers was expected. Such observations were noted in the peer informal lesson context. There, some clients exhibited a certain "bossy" affect in their interactional style that in ways prevented their retarded interlocutors from engaging in true egalitarian fashion. However, in contrast to the resignation demonstrated by CT speakers above, the clients who were subject to the domineering maneuvers of their interlocutors in

these examples exhibited some recognition of the fact that they were being dictated to. Given that the subordinate members in each of these formal and informal lesson examples demonstrated differences in how they responded to overt displays of control, additional evidence in support of the influence of setting may be apparent by these examples.

3 Quad 4 NEW Client-Produced D1 Bids

(NEW) : Here's a cup//
Go// (D1) Brown// Go// (D1)
Wait// (D1) White first//
(OLD) : Oh now you tell me//
You always tell me what to do//

4 Quad 4 OLD Client-Produced D1 Bid

(NEW) : Can you help me cut this?//
(OLD) : Yeah/ if you hold it for me//
That makes it much easier//
Ah/ just hold it/ just hold it// (D1)
(NEW) : I am holding it//

Individual speaker differences causing a more initiatory and/or "bossy" tone were also evident in client-produced utterances within non-peer formal and informal interactions. The client cited above in example #1 was likewise noted to employ these described behaviors in his dealings with nonretarded participants, which in turn caused his interlocutors to repeat instructions and/or get

the retarded individual to stop and pay attention before carrying on with the activity. In effect, the nonretarded instructor (who already occupied a dominant position in the formal interaction by virtue of the fact that he knew the game he was teaching) was made to exert an even stronger position in the formal interaction in response to client maneuvering. The instructor in the informal setting (who maintained a more egalitarian posture initially) was made to exercise a more dominant role in order to structure the activity about to be undertaken.

5 Quad 1 Teacher-Produced D1 Bids

(T) : Have you ever played Tic Tac Toe?//

(C) : Yeah/ I guess//

(T) : OK/ so I guess you know how to win//

You can get three across like this// right?/

(C) : OK/ I'll put/

(T) : I'll show you//

Wait a second before we play// (D1)

(C) : I'll put the black one right here//

(T) : Yeah well/ we're not starting yet//

Wait until we're ready to play// (D1)

6 Quad 3 Teacher-Produced D1 Bids

(T) : OK/ you understand?//

(C) : Yeah/ put the water/

(T) : Well/ wait a minute// (D1)

What do we need first?//

(C) : This//

I'll put that in there//

(T) : Look at this Donald// (D1)

(C) : I'll put the seeds/

(T) : Take a look at this first// (D1)

Certain nonretarded teachers likewise exhibited individual speaker differences that affected the ways in which their instructional recipients manifested control within settings. One teacher (previously mentioned in the Results Chapter under the discussion of implicit weak directive bids), employed a more facilitative posture with his retarded subjects in the formal setting and used more suggestive bids to control the interaction, while another instructor from the informal lesson context employed a more directorial style in her interactions with clients that compromised the collegial tone that was intended to occur therein. In either case, a dominant position in the interaction was maintained by the instructor in question, though the effects they produced were different with their respective clients. In the former case, the facilitative tone of the instructor provided more opportunities for the retarded subject to produce controlling bids; in the latter case, the directorial tone of the instructor served to keep the retarded subject in a more subordinate position in the dyad.

7 Quad 1 Teacher-Produced D2 Bids (implicit forms)

(T) : OK/ Look before you make that move// (D2) (temp Q)

You could go here to get 4 in a row// (D2) (modal)

(C) : I'll go right here// (D2)

(T) : OK/ that's a good move//

8 Quad 3 Teacher-Produced D1 Bids

(T) : What I want you to do is take this// (D1)

And put it on this one// (D1)

You hold that so it doesn't come off// (D1)

Now take the scissors// (D1)

(C) : Oh wow/ What should I do?// (Q2)

Just cut around this here?// (Q2)

## IV. PRE-CONCEPTIONS ABOUT CONTROL

The decision of the instructor cited above, and others, either consciously or unconsciously, to maintain a dominant position of authority in an informal instructional setting where a more collegial tone is expected, may be motivated by some preconceived notions they possess concerning the position, either dominant or subordinate, a person might assume in an interaction. Instructors may inherently seek to maintain whatever control they can during informal conditions, despite the fact that more sharing of responsibility is expected, based on the feeling that it is their job to do so.

In a mainstream formal learning environment, teachers are called upon to convey a set of facts and figures to their instuctional charges via standard guidelines and

established curricula. They are also provided with a quantity of time in which the work of teaching can be conducted. Mainstream schools run on either a semester or trimester calendar, during which time teachers must schedule classes in such a manner that curricula can be conveyed in timely and expeditious fashion.

In the day treatment environment, educators are also provided with standard curricula and time constraints which must be jointly factored in to insure that retarded individuals are provided with appropriate instruction. In the day treatment facility, instructors work on the "quarterly" system, where the year is divided into four equal segments of time. When that "year" starts is individually determined by either the client's date of birth or anniversary of admittance to the facility.

Provided with this background, and given that the instructors of these tasks were given only the one occasion in which to engage in coordinative problem solving, they may not have felt enough opportunity was provided in order to behave in a more collegial fashion with their clients, unfamiliar as they were to a jointly constructed interaction. Teachers engaging in these tasks may therefore have operated from a mental set that dictated how they were to conduct themselves, i.e. in a directorial manner, in order to insure the completion of the task before the return of the investigator and the shutting off of the camera. Given the possibility of such a scenario, some of the teachers' unwillingness to attribute more responsibility onto client

participants in the task could be accounted for.

Further, teachers in a joint problem solving task may have felt that their subjects were incapable of carrying out a multi-step task in a "one shot only" attempt, based on preconceived biases they could possess concerning retarded speaker ability. They may therefore have neglected to provide opportunities to the clients for exercising more initiatory routines, in order to keep the interaction "running smoothly" under their own control.

Linder (1978 b) made similar observations to this in his examination of the perception and management of "trouble" in retarded and nonretarded conversations. In that study, nonretarded interlocutors enacted various simplifying procedures in their own language used with retarded adults to minimize potential moments of embarassment that they thought might occur later conversationally in the absence of such simplifying procedures. Thus, Linder's nonretarded speakers were able to maintain control in a conversational setting by not providing opportunities for retarded adults to respond to questions or issues that were not of a most mundane nature.

Retarded persons themselves may be subject to preconceived notions about status and their own ability to function differently in a learning and/or conversational context. According to various sources from the literature, including: Edgerton (1967), who looked at the coping strategies of newly-released long-term institutionalized individuals; Linder (1978 a,b), who examined the communica-

tive competence of adult retarded speakers in different interviewee situations; Platt (1985) and Anderson-Levitt & Platt (1984), who looked at the ability of adult retarded speakers to display communicative competence across different group home or sheltered workshop conditions, respectively, adults with mental retardation will try various means available to mask feelings of inequality they perceive to be present with nonretarded interlocutors. These anti-stigmatizing avoidance behaviors, or what Edgerton (1967) calls "weaving the cloak of competence", include over-compensatory mechanisms for doing more than one's peers in order to demonstrate "normalcy" in a situation, such that control can be exercised by that individual.

Kernan & Sabsay (1981) summarize these over-compensatory mechanisms along the dimensions of topic, setting and interlocutor. According to these authors, retarded adults will at times talk about topics at the wrong time, with the wrong person, in an inappropriate manner or situation, or inappropriate to the general tenor of the conversation on the floor at that moment. They can thus be said to be concerned with "passing for normal", but are generally "unaware of the particular mistakes they make", or else are "unable to avoid or correct them" (Edgerton, 1967). This observation may help to account for the finding that retarded teachers exercise a "stiff", directorial posture in their instruction giving to peers, based on a pre-conceived notion that doing so in this manner is considered "normal" for a formal lesson.

## V. SELF- VS. OTHER-REGULATORY STRATEGIES : DEFICIT / COMPETENCE MODELS REVISITED

While this description of clients trying to "pass for normal" may help to account for the initiatory moves and "bossy" affect that certain persons exhibit, this deficit view of retarded persons' abilities to exhibit communicative competence (Sabsay & Kernan, 1981) is, at the same time, steeped in the notion that the individuals in question require the input of some well-meaning nonretarded interlocutor to guide and direct the interaction in such a way that problems with communication are kept to a minimum. Advocates of the Deficit Model would thus contend that retarded speakers require other-regulatory direction and guidance in order to effectively carry out instructional tasks.

Aspects of the present investigation might also support the contention that retarded individuals require other-regulatory routines in interactions to demonstrate communicative competence, if the obtained findings of subjects producing more talk and more overall bids with non-peers over peers in an informal lesson context, and individual teacher differences accounting for more controlling opportunities on the part of the retarded subject (in the discussion above) are any indication.

However, before any conclusions in favor of the Deficit Model are drawn, one must also consider the many other findings that were obtained from the qualitative analysis

concerning the ability of retarded speakers to demonstrate control in both peer and non-peer interactions, including their noted ability to exercise initiatory/regulatory strong directive, explicit/implicit weak directive and task/nontask-related uninformed question bids. As described, these findings of demonstrated competence are more directly attributable to the influence of the independent variables of instructional setting and interlocutor role, and not the good intentions of some other well-meaning speaker in the interaction.

Such an orientation to viewing obtained results would recommend the alternate, i.e. Competence Model, as a means of explaining why retarded subjects display either a dominant or submissive posture in various lesson settings. The Competence Model contends that retarded adults possess the requisite skills to function adequately in different communicative situations, and would assert that self-regulatory routines, or the ability to gauge interactions and provide oneself with guidance and direction in an interaction, are the key parameters to describing the linguistic abilities of adult retarded speakers.

Results of the present investigation into the ability of mentally retarded adults to control an instructional interaction would thus appear equivocal, in light of the bilateral account provided. Statistically, retarded speakers were not revealed as exercising any more control with non-peers in either formal or informal settings (Quads 1 and 3); nor were they observed exercising significantly

more control with peers informally in comparison to their performance with non-peers informally (Quads 3 and 4). However, retarded persons were noted to be more dominant with peers during formal lessons than they were with peers in an informal setting (Quads 2 and 4); and were likewise more dominant with peers in a formal interaction in comparison to their performance with non-peers in a formal setting (Quads 1 and 2).

Above and beyond the conclusions drawn from the quantitative analysis conducted are the findings obtained from the qualitative treatment of the data, which showed retarded subjects as capable of producing the same regulatory/initiatory strong directives, explicit/implicit weak directives and task/nontask-related uninformed questions that nonretarded persons are credited with. Halting the investigation at the initial quantitative analysis stage might lead one to the conclusion that retarded speakers are deficient in their ability to exercise control in all instructional settings, since significant findings are not obtained across all teaching conditions. However, the addition of the qualitative analysis reveals subtle differences in the kind of language produced by retarded speakers in the various instructional settings, that supports a competence-based model of communicative ability.

## VI. PRESENT IMPLICATIONS

Based on the results obtained in this study, it is not

clearly established whether adult retarded speakers are at all times sensitive to the influences of role and setting as they attempt to exercise control in an instructional situation, given the fact that significant differences between retarded speaker performances in the different tasks are not consistently attained. The language they produce in the different settings is noteworthy however, in that it suggests that retarded speakers have the wherewithal to produce the controlling bids of interest.

Concerning the contributive effects of the present investigation into the controlling routines of retarded speakers: an initial contribution comes in the form of the information it provides the readership regarding the status of the day treatment facility. As was noted in the introductory chapter, this institutional setting has somehow been missed by investigators interested in the communicative competence of adult retarded speakers. This is considered a negligent oversight by this investigator, since the number of adult retarded persons receiving services at this level is so great.

More germane to the present topic of interest, this study contributes both quantitative and qualitative findings that examine the capacity of adult retarded speakers to exercise control in various instructional interactions. The investigation also provides an in-depth analysis of the influence of formality vs. informality in the different dyadic settings, which stands as an innovative contribution to the literature on adult retarded speaker communicative

competence. Earlier studies conducted in the area of retarded speaker abilities to engage with nonretarded interlocutors (as reviewed in Chapter I) did not incorporate an informal instructional interaction as a means of examining those abilities, but remained restricted to investigations of formal teaching contexts where set tasks were introduced for retarded learners to grasp and carry out. Such studies are considered to possess an inherent bias in how these investigators view the retarded speakers as already occupying a less-privileged position in the interaction, i.e. as persons in need of direction and guidance. In the present investigation, no such bias was entertained in the joint problem solving context, as both retarded and nonretarded speakers were intended to exercise a more collegial posture with one another.

Beyond the fact of adding joint problem solving to the pool of situations that retarded adults have now been observed interacting within, this study also makes a unique contribution to the literature of adult retarded speaker communicative competence by virtue of its manipulation of clients as "teachers" in a formal learning context. Previous studies that have looked at the ability of retarded speakers to impart knowledge (*see* Chapter I review) have done so by having their subjects answer questions in either interview fashion, or in the context of informal conversational interactions. In this investigation, retarded speakers are called upon to initiate instructional sequences and convey knowledge they possess in a more directorial (not

responsive) manner.

Aside from the novel contributions mentioned that this study provides, the findings themselves concerning dominant and submissive controlling abilities can now be added to the knowledge base that is accumulating on adult retarded speakers. Researchers who profess an inquisitiveness about the communicative abilities of this special interest group ought now be able to observe how the language produced by retarded adults changes from setting to setting and with different interlocutors, as those speakers strive for interactional control.

# CHAPTER V : CONCLUSIONS

As noted, the present study of the interactive behaviors of adult retarded speakers and nonretarded interactants did not clearly establish whether the former group of speakers consistently exhibited control in various teaching conditions, defined along the parameters of instructional setting and role relationship. While some of the predictions made regarding retarded and nonretarded speaker capabilities were substantiated by the obtained findings, thus supporting a competence-based model of communicative abilities, other predictions failed to be borne out by the results derived, thus supporting the deficit view.

Each of the predictions made in the introductory chapter will be presented again, with indications made as to whether the data supported expectations or not (refer to Table 1, p. 45; and Table 2, p. 50).

## I. NON-PEER PREDICTIONS ADDRESSED

a) Retarded persons will speak more in joint problem solving situations than they do in formal lessons.

This prediction was not substantiated by the obtained results; retarded speakers were not more likely to speak at any great length during joint problem solving or during the formal lesson conducted by nonretarded interactants.

b) Retarded persons will exhibit greater submissiveness in formal lessons that they do in joint problem solving; and

c) Retarded persons will exhibit greater dominance in joint problem solving situations than they do in formal lessons.

Neither of these predictions were substantiated by the obtained results. While the contrastive conditions were expected to elicit opposite effects re: how dominance and submissiveness were expressed as settings changed, the changes in speaking style which did occur did not achieve significance.

d) Staff members will speak more in formal lessons than they do in joint problem solving.

Nonretarded speakers in these contrastive situations did not speak any more in one condition to the next; the prediction was therefore unsubstantiated by these data.

e) Staff members will exhibit greater dominance in formal lessons than they do in joint problem solving situations; and

f) Staff members will exhibit greater submissiveness in joint problem solving situations than they do in formal lessons.

Both these predictions were substantiated in the current investigation. Nonretarded instructors produced significantly more weak directive bids, a dominant measure of control, in the formal lesson context, thus supporting the prediction. In addition, they produced a proportionately higher trend of uninformed question bids, a submissive measure of control, in the joint problem solving situation. Those results were consistent with the prediction made concerning their expected style of interaction in the informal setting.

II. PEER PREDICTIONS ADDRESSED

a) Retarded persons as teachers in formal lessons with peers will speak more than added peers in joint problem solving situations; and

b) Retarded persons as teachers in formal lessons with peers will display greater dominance than added peers in joint problem solving situations.

While the group of subjects serving as teachers in a formal instructional condition did not produce significantly more utterances overall than the added peers in the informal lesson setting, they were observed producing significantly more dominant bids in the form of weak directives in that formal setting. Thus, the first prediction re: the amount of talk produced was not substantiated, while the second one concerning greater dominance in the interaction was fulfilled by these data.

c) Retarded persons as learners in peer formal lessons will speak less than they do in joint problem solving situations; and

d) Retarded persons as learners in peer formal lessons will display greater submissiveness than they do in joint problem solving situations.

Retarded speakers as learners were noted to produce a proportionately lower number of overall utterances in the formal lesson context, though were simultaneously noted to produce a proportionately higher number of weak directives, a dominant measure of control, in that formal lesson setting. Thus, while the quantitative prediction made regarding the amount of overall talk in the contrastive quadrants was substantiated by these results, the prediction made

concerning a more submissive style of interaction by the retarded task learner was not supported. In fact, an opposite effect was noted, in that retarded subjects as task learners exhibited a more dominant style of interaction. This presented them as similar in behavior to the retarded subjects as teachers, discussed above, who were likewise dominant in their interactive style during formal lessons.

e) Retarded persons as learners in peer formal lessons will speak more than they do in non-peer formal lessons; and

f) Retarded persons as learners in peer formal lessons will display greater dominance than they do in non-peer formal lessons.

Retarded learners did not speak to any greater length in either of the formal lesson conditions involving non-peer and peer interactants. However, the peer formal lesson setting was conducive in eliciting both weak directives and overall bids in significant measure by the subjects acting as task learners. Thus, the first prediction made regarding amount of talk was not substantiated, while the second prediction made concerning dominance in the interaction was borne out by these data.

g) Retarded subjects in peer joint problem solving situations will speak more than they do in non-peer joint problem solving situations; and

h) Retarded subjects in peer joint problem solving situations will display greater dominance than they do in non-peer joint problem solving situations.

An opposite effect was noted in the amount of talk

produced by retarded speakers in these contrastive settings. Subjects were actually noted to produce more utterances with non-peers than peers; thus a substantiation of the first prediction did not occur. In addition, no significant differences in the amount or type of dominant bids between these two settings were noted. Thus, the second prediction was not supported either. However, the fact that an opposite finding was derived in place of the first predictive expectation suggested that retarded speakers in an informal lesson setting were strongly influenced by other-regulatory strategies.

i) Peer dyads in joint problem solving situations will cumulatively speak more than peer dyads in formal lessons;

j) Retarded subjects in peer joint problem solving situations will produce more overall bids than clients as learners in formal lessons; and

k) New retarded peers in joint problem solving situations will produce more overall bids than clients as learners in formal lessons.

Retarded speaker dyads in joint problem solving situations did produce more utterances overall than did retarded speaker dyads under the formal lesson condition. In addition, original retarded subjects in the informal lesson context produced proportionately more overall bids than they did when carrying out a formal lesson task. Thus, the first prediction concerning the amount of talk produced by contrastive groups of retarded speakers was substantiated by these data, as was the prediction made that retarded subjects would produce more bids overall in an informal

lesson context than they would during a formal lesson. However, the third prediction made concerning the ability of new retarded peers to produce more overall bids than clients as teachers in the formal setting was not borne out by these findings.

In addition to these findings which concern themselves with a quantitative treatment of the data, qualitative findings indicated that both retarded and nonretarded speakers were capable of expressing the same regulatory/ initiatory strong directives, explicit/implicit weak directives, and task/nontask-related uninformed questions in the different instructional settings, to some degree. (N.B. The reader is referred to earlier chapters for a more complete description of the quantitative and qualitative implications of this study.)

## III. FUTURE RESEARCH INDICATIONS

Based on results obtained in the present investigation, some questions were raised that would warrant further inquiry.

1) Specifically, it was noted that nonretarded teachers were unaffected by the variable of role in the interaction, since they were not designed to interact with clients from contrastive groups; the subjects selected for this study were carefully matched to one another via several entrance criteria in order to obtain a fairly homogeneous mix. One

indication for a future study would be to have nonretarded instructors in the day treatment facility interact with different groups of clients (e.g. mildly vs. profoundly retarded; verbal vs. nonverbal; autisitic vs. retarded), in order to determine if interlocutor role influences how nonretarded instructors employ a more dominant/submissive, initiatory/regulatory, or directorial/facilitative posture.

2) Given that in the non-peer formal and informal interactions, one was unable to observe if teachers changed in their instructional uses of dominant and submissive bids for control as learners grew in competence, another indication for a future study would be to have day treatment instructors teach a group of retarded subjects the same activity over several sessions, in order to observe potential modifications in instructional style.

3) The present study placed great emphasis on determining how control was exercised in an interaction, with the major focus placed on the expression of dominant and submissive bids. In order to determine if the language produced in a particular instructional setting was viewed as being the product of a communicatively competent speaker, a study could be conducted whereby transcripts of instructional dialogue are rated by independent readers who would provide judgements concerning the language's "normalacy" vs. "inadequateness" as it relates to the issue of competence.

4) A further area of investigation would be to observe if retarded speakers as teachers speak more or less than

retarded speakers as learners, and/or exhibit measures of dominance or submissiveness, within an instructional condition. All comparisons made in the present investigation looked at contrastive groups of speakers across setting or role condition and neglected to examine the data obtained from within the same instructional setting.

5) A final area of investigation would be to add an additional interaction to the two already assessed. That is, it would be interesting to compare the results obtained in this study to results obtained from a purely conversational interaction involving peer and non-peer interactants, where no formal or informal tasks are conducted by the dyad. In this manner, an additional link in the continuum from formality to informality could be incorporated that would prove the most egalitarian of all the links in the chain.

# APPENDIX

Agency Authorization Letter

Signed Consent Forms

LONG ISLAND
ASSOCIATION for CHILDREN with LEARNING DISABILITIES
305 OSER AVENUE, HAUPPAUGE, NEW YORK 11788 • (516) 434-1715 • FAX (516) 434-1738

VOCATIONAL TREATMENT CENTER

Donald H. Mitzner, President
Aaron Liebowitz, Executive Director
Steven Vernikoff, Assistant Executive Director
Sharon Fischer, Assistant Director

December 8, 1989

Mr. Robert Domingo
71 Alexander Avenue
Farmingdale, NY 11735

Dear Mr. Domingo:

It is my pleasure to inform you that ACLD's research committee has approved of your study of instructional discourse in the day treatment setting.

You can begin your study immediately.

We are looking forward to working with you and are anxious to see the results of your observations regarding our clients.

Sincerely,

Howard C. Schneider, Ph.D.
Clinical Director

HCS:gm

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VOCATIONAL TREATMENT CENTER

Donald H. Mitzner, President
Aaron Liebowitz, Executive Director
Steven Vernikoff, Assistant Executive Director
Sharon Fischer, Assistant Director

# INSTRUCTOR RELEASE FORM

TO : Hauppauge Transitional Day Treatment Staff

FROM : Robert A. Domingo, MS, CCC-Sp.
Speech-Language Pathologist

I consent to having myself videotaped during instructional segments with selected clients from the Hauppauge Day Treatment Program. I am aware that the videotapes are being used for research purposes only. I know that the purpose of the research project is to determine how instructional discourse is constituted in a day treatment facility for adults with mental retardation.

I am further aware that the videotapes will be shown to research professionals only, from within and outside of the Long Island Association for Children and Adults with Learning Disabilities (LIACLD) Agency, and that they may also be used at professional conferences as teaching aides. If at any point I feel that I do not wish to participate further in this research project, I will be allowed to withdraw myself from scheduled taping sessions without repercussion. Finally, I understand that these tapes will not in any way be used for the purpose of either promotion or termination from employment with the Agency.

SIGNATURE : _____

LONG ISLAND
ASSOCIATION for CHILDREN with LEARNING DISABILITIES
305 OSER AVENUE, HAUPPAUGE, NEW YORK 11788 • (516) 434-1715 • FAX (516) 434-1738

VOCATIONAL TREATMENT CENTER

Donald H. Mitzner, President
Aaron Liebowitz, Executive Director
Steven Vernikoff, Assistant Executive Director
Sharon Fischer, Assistant Director

Date : _____

_____ (Manager)

_____ (Residence)

I am requesting that _____, a resident of your facility, participate in a series of videotaping sessions at the Day Treatment Program to examine how "control" in instructional discourse is constituted.

Upon your review and consent, this individual will be videotaped together with a staff person at the Day Treatment Program, as well as with one of his/her peers in both structured and informal teaching situations. At all times during taping only first names will be used and their identities will be guarded to ensure client confidentiality. Your resident will have the freedom to remove him/herself from the observations at any time if they do not wish to continue with the taping, without consequence. Following the completion of data collection and analysis, results of these observations will be written up and videotapes will be shared only with professionals in the field who are interested in the communication skills of adults with developmental disabilities. In addition, I will notify your facility concerning these results. Based on the findings of this study, training programs that address problems in the controlling abilities of adults with developmental disabilities will be implemented in the classroom and/or therapy setting.

Please sign the consent form on the reverse of this letter and send into the Hauppauge Transitional Day Treatment Program in the enclosed, self-addressed stamped envelope, to the attention of the Speech-Language Pathologist.

If you have any questions or comments concerning these observations, please do not hesitate to contact me any Thursday at the Hauppauge Transitional Day Treatment Program, (516) 434-1715, or Mondays at the Albertson Adult Day Treatment Program, (516) 625-0960. If you are interested in having the tapes viewed by someone in your facility, or in discussing the nature of communication skills with me, I would be happy to schedule an appointment at your convenience.

Yours truly,

Robert A. Domingo, MS, CCC-Sp.
Speech-Language Pathologist
A.C.L.D. Day Treatment Programs

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RESIDENTIAL CONSENT FORM

Date : _____

I hereby consent to having _____, a resident in our facility, participate in observations at Day Treatment to examine instructional discourse. I understand that while their first name may be used, confidentiality will be safeguarded and results shared only with professionals in the field. I further understand that this resident may remove him/herself from the sessions at any time without consequence.

Signature : _____

Affiliation : _____

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VOCATIONAL TREATMENT CENTER

Donald H. Mitzner, President
Aaron Liebowitz, Executive Director
Steven Vernikoff, Assistant Executive Director
Sharon Fischer, Assistant Director

Date : _____

Dear _____,

I am requesting that you join a group of your fellow classmates in a series of filming sessions at the Day Treatment Program during small group talks.

If you think you would be interested in this project and would be willing to sign the consent form below, then you will be put on film with different people from the Day Treatment Program doing various group activities and having conversations. You will be allowed to stop coming to the groups at any time if you do not want to continue, without it being a problem. I will be showing these tapes to you after they are completed so we can have a chance to discuss them together. I will also be showing them to people from A.C.L.D. and to professors from my school in New York City who are interested in my work with you.

If you have any questions about this project, please let me know. I am at the Hauppauge Day Treatment Program every Tuesday in the morning, or all day on Thursdays. I would be happy to answer any of your questions. I would also like it a great deal if you decide to join in this special project.

Thanks very much,

Bob Domingo
Speech Therapist

PERSONAL CONSENT FORM

Date : _____

I give permission to Bob Domingo to take my picture on film during a special project at the Day Treatment Program. I know that I can stop coming to the group anytime I wish, without it causing a problem. I also know that I will get a chance to see the films after they are completed.

Signature : _____

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VOCATIONAL TREATMENT CENTER

Donald H. Miltzner, President
Aaron Liebowitz, Executive Director
Steven Vernikoff, Assistant Executive Director
Sharon Fischer, Assistant Director

Date : _____

Dear Parent/Guardian,

I am requesting that your son/daughter participate in a series of sessions at the Day Treatment program to examine how "control" in instructional discourse is constituted.

Upon your approval and written consent, your son/daughter will be videotaped together with a staff person at Day Treatment as well as with one of his/her peers in both structured and informal teaching situations. At all times during taping only first names will be used and their identities will be guarded to ensure client confidentiality. Your son/daughter will have the freedom to remove themselves from the observations at any time if they do not wish to continue with the taping, without consequence. Following the completion of data collection and analysis, results of these observations will be written up and videotapes will be shared only with professionals in the field who are interested in the communication skills of adults with developmental disabilities. In addition, I will notify you concerning these results. Based on the findings of this study, training programs that address problems in the controlling abilities of adults with developmental disabilities will be implemented in the classroom and/or therapy setting.

Please sign the consent form on the reverse of this letter and send into the Hauppauge Transitional Day Treatment program in the enclosed, self-addressed stamped envelope, to the attention of the Speech-Language Pathologist.

If you have any questions or comments concerning these observations, please do not hesitate to contact me any Thursday at the Hauppauge Transitional Day Treatment Program, (516) 434-1715, or Mondays at the Albertson Adult Day Treatment Program, (516) 625-0960. If you are interested in viewing the tapes or in discussing the nature of communication skills with me, I would be happy to schedule an appointment with you, at your convenience.

Yours truly,

Robert A. Domingo, MS, CCC-Sp.
Speech-Language Pathologist
A.C.L.D. Day Treatment Programs

---

PARENTAL/GUARDIAN CONSENT FORM

Date : _____

I hereby consent to having my son/daughter _____ participate in observations at Day Treatment to examine instructional discourse. I understand that while their first name may be used, confidentiality will be safeguarded and results shared only with professionals in the field. I further understand that my son/daughter may remove themselves from the sessions at any time without consequence.

Signature: _____
(parent/guardian)

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