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THE IMPACT OF EDUCATIONAL INSTRUCTION ON NEGATIVE PERCEPTIONS OF STUTTERERS

By

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ABSTRACT

THE IMPACT OF EDUCATIONAL MATERIAL ON NEGATIVE PERCEPTIONS OF STUTTERERS

By

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The purpose of this study was to determine if negative perceptions of stutterers could be made more positive through the use of educational material. This study involved 68 undergraduate students majoring in speech-language pathology. They were randomly divided into 3 groups, whereby each group saw a different video tape. Group I viewed material neutral to the topic of stuttering. Group II saw general lecture material about stuttering. Group III viewed personal stories about stutterers. A bi-polar adjective scale was used to record subjects' perceptions of stutterers both before and after the video was shown. The 25 item scale was summarized to 3 dimensions according to statements that were similar in content. Analysis of variance revealed that typical lecture material given to students created some increase in negative perceptions while viewing personal stories about stutterers created the greatest amount of positive change.

DEDICATION

This work is dedicated to all the special children, who have taught me to always have hope. May theirs be a world that sees through their disabilities and values them for their abilities.

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CHAPTER 1 - INTRODUCTION

Background

Stereotyping is a phenomenon that impacts the lives of all people. Every interaction in daily life is affected by pre-conceived notions held about the people and situations dealt with throughout the course of our lives. Stereotypes are often relied upon to structure interactions, by lending a context to the unfamiliar situations that arise constantly. Unfortunately, stereotypes are often acquired second hand, through sources such as the media and the observations of others, instead of our personal experience with the subject of scrutiny. This is how stereotypes become dangerous and often damaging to people. When a particular group of people are categorized by certain characteristics, their unique experiences regarding their individuality are diminished. It is easier to rely upon our accumulated store of knowledge of a broad group of people instead of discovering what individual characteristics separate persons from each other within a group. It is most dangerous when people who have power to have a significant impact on others lives rely on these stereotypes to define those around them. They then focus on the generalities commonly believed about these groups and are reluctant to observe other characteristics individuals have (Allport, 1954; Baird & Rosenbaum, 1992; Bettleheim & Janowitz, 1964).

The people who make decisions about who can achieve, who is worthy of privileges and who matters can have a powerful impact of the lives on everyone who is a part of a categorized group. Since everyone is a member of some identifiable category, this impacts everyone, whether they are aware of it or not. It is for this reason that it is crucial to make all people aware of stereotyping and the affect it has on their lives as well as the lives of those around them.

Many characteristics have been commonly used to stereotype people, such as age, gender, race, religion, sexual orientation, ethnicity, physical characteristics or political preference. Handicappers have been a vocal group in educating people about the abilities of "challenged" people, as opposed to the disabilities, which are more often focused on by the general public. Their efforts have raised the level of awareness of the danger of stereotypes in society and have broken many barriers that were built by individuals who were frightened by the differences handicappers represent.

Individuals that have communication disorders are the targets of the same type of prejudices commonly held about handicappers in general. It is especially difficult to educate society when your power of communication has been impaired, for communication is the primary means of education. The inability to communicate effectively can have a life-long impact on the personal and professional relationships communicatively disabled individuals strive to have.

Communicatively disabled people are often subjected to the stereotype of being unintelligent because they cannot express their ideas and thoughts as eloquently as others. This begins to impact these people as children and remains to be a factor throughout their lives. It is common for the negative self-image held by many communicatively disordered people to persist long after the disability has been remediated effectively, because of the negative messages given to them at a time when their disorder was more evident. For those people who have had life-long communication disorders the stereotypes they are subjected to in the classroom often carries over to the adult work place and into personal relationships. Most often the negative messages given these individuals by our society impacts many aspects of their lives.

Stutterers are one group of individuals that are affected by the negative stereotypes mentioned above. Stuttering is a handicapping condition that is often invisible to society as a whole because many stutterers find their attempts at communicating so humiliating that they speak as little as possible. Often their personality is shaped by the negative feedback they have had surrounding attempts at communication. Society as a whole is then left to form their opinions of stutterers through the media, such as comical or degrading portrayals of stutterers in films or from the brief interaction they may have had when a stutterer was struggling to communicate. Teachers may often avoid communicating with

a stutterer because of their own discomfort about the situation, which can have adverse effects on their education. Professionals may not want to hire stutterers because of stereotypes they hold about the intelligence of the stutterer. These are barriers that many stutterers will confront throughout their lives. The question remains to be: How can we educate the general public to reduce these stereotypes?

Acknowledging that stereotypes exist is the first and most crucial step to changing them. Stereotypes are perpetuated in society by the ignorant passing of stereotypes from one generation to the next. In this way stereotypes are accepted as truth because they have not been appropriately challenged. It is important to identify the characteristics of stereotypes so people are aware of their own bias and can monitor themselves. Individuals need to meet the object of the stereotypes and observe their individual differences to see that stereotypes are not based in reality. They need to be given information about the group being discriminated against to counterbalance the misinformation they may already have. Most importantly, they need to understand the damage that stereotypes can do to all people, including themselves. It is not until someone can see a vulnerability within themselves that a person can understand the necessity of protecting all people from this potential danger.

When we examine the complexities of stereotypes it becomes evident that changing them is not something easily

accomplished. There are many methods of educating people about these issues, through literature (pamphlets, newspapers, magazines, books), the media (movies, documentaries, talk shows), visual aides (videotapes, public service announcements) or personal instruction (in services, workshops). Each of these methods of education have strong and weak points, but the key factor is the organization and quality of the presentation. Although literature is very accessible and does not require much time on the readers part, it may be easily dismissed and often does not leave a strong impression. Visual aides are more likely to hold the receivers attention and demonstrate the issues more vividly, but lack the personal interaction that increases retention on the receivers part and answers questions. Personally given information is an effective method of education because it has the potential to completely involve the listener in all modalities. It can be as accessible as literature and also aide the listener in visualizing the issues. It allows the listener to observe the source of information and may allow opportunities to actually experience the subject matter in a practical sense. An issue as complex as the implications of stereotyping needs to be addressed using all possible means of communicating the message (Biard & Rosenbaum, 1992).

Literature Review

The original investigation examining attitudes toward

stuttering was McDonald and Frick's (1954) study in which store clerks' reaction to stutterers were measured. This was the first time a research format was used to investigate how stereotypes held by others can effect stutterers. The purpose of the study was to determine levels of knowledge held by store clerks, being a group more typical of the general public than most subjects used in research.

A list of probable reactions to stutterers was gathered by exposing a group of communication disorders students to a 3 minute audio tape of a severe stutterer and then having them write down their reactions. From these reactions a 25 item questionnaire was formulated and divided into 8 categories according to the type of feeling the items alluded to: surprise, embarrassment, impatience, pity, amusement, curiosity, sympathy and repulsion. Fifty store clerks were approached by a stutterer who produced a severe stuttering block while asking a question. After the stutterer left the situation a trained questioner quizzed the store clerk on their reactions to the stutterer. Feelings of surprise, embarrassment, pity, curiosity and sympathy were experienced by the listener with varying degrees of frequency. In addition, the data indicated that feelings of impatience, repulsion and amusement were encountered only rarely by the stutterer.

This study was significant for many reasons. It was one of the only studies to actually observe the reactions of the

public to a stutterer. Therefore it did not deal as much with stereotypes as authentic automatic reactions. Most studies done since have posed a hypothetical stutterer to the subject, as contrasted to actual interaction to a stutterer. This deals more in long term stereotypes held. One significant finding of McDonald & Frick's (1958) study was that many people did not know what disorder the stutterer had. The authors state that this points to a great need for a continuing program of public education. Woods and Williams study (1976) concluded that a strong stereotype of stutterer's personality characteristics does exist and these stereotypes are predominantly unfavorable. This study examined the stereotypes held by seven groups of individuals: adult stutterers, parents of stuttering children, parents of children with non-stuttering speech problems, parents of normally speaking children, elementary grade classroom teachers, public school speech clinicians and college students. These subjects were asked to rate four hypothetical concepts (typical eight year old male, typical eight year old male stutterer, typical adult male, typical adult male stutterer) on 25 adjective scales. The adjective scale was derived from words previously found by speech clinicians as descriptive of stutterers and antonyms of those words. The three significant factors examined to obtain results were speech, age and groups. On 23 out of the 25 scales, speech (whether the person was a stutterer or a non-stutterer) was

found to be notable in the judgments of the raters. The age factor was influential due to differing expectation of the communicative abilities of boys and men, with higher expectations applied to the men. Within the rater groups examined, significant differences were found among five of the groups. These differences were largely due to the extreme rating of college students, speech pathologists and classroom teachers. All three of these groups rated stutterers and non-stutterers at extreme ends of the adjectival continuum from each other. Ratings of the other four groups were more moderately polarized. A significant finding of the group interaction was that speech pathologists rated the stuttering boy to be most like the non-stuttering boy and classroom teachers rated the stuttering boy to be most unlike the stuttering boy. In all cases, the stuttering male was found to have 95% of undesirable personality characteristics. The data reported by this study suggests that many people expect a stutterer to be different than a non-stutterer in certain undesirable ways. Woods and Williams comment in their discussion that "such a pervasive stereotype may well have a powerful influence on the stutterers self-evaluations and actions."

The 1981 study by Turnbaugh, Guitar and Hoffman examined how personality traits were attributed to stutterers based on multiple factors. In Part I of the study, audio and video tapes were presented and the differences in the listener's

reaction were noted. The impact of the stutterer's secondary versus primary stuttering characteristics on the listener's reaction to a stutterer was examined. Also analyzed were the assignment of personality traits to a fluent person who was labeled as a stutterer for the purposes of the study. Part II of this study carried the idea of the "hypothetical stutterer" one step further by examining reactions to actual stutterers. These two variables were then compared pertaining to the assignment of personality characteristics. The subjects in Part I consisted of six groups of independent college students, who were selected based on availability. Each group listened to a different recording and watched a different videotape, being informed only that it was an interview with a 28 year-old male. The test instrument used to gauge their reactions was a modified version of the bipolar adjective scale devised by Woods and Williams (1976).

The subjects of Part II of the experiment were two independent groups of 18 college students. Group I was asked to rate the "typical individual who stutters" and Group II was asked to rate the "typical individual who is normally fluent". The test instrument used in Part I was also used in this part of the experiment. In Part I it was found that subjects assigned personality traits similarly whether the stutterer was presented with an audio or video tape or whether the stutterer exhibited primary, secondary or no stuttering behaviors. Part II revealed that personality stereotypes

differed significantly from those of non-stutterers. These differences were found to be largely negative. Although Part I of this study did not reveal significant differences in personality trait assignment based on the experimental variables, Part II indicated that there were definite negative stereotypes held on the part of the raters.

Various factors that impact teacher's attitudes towards stutterers were investigated in the 1981 study by Crowe and Walton. The Teacher's Attitude Toward Stuttering (TATS) inventory was devised for use in this study. It consisted of 36 statements designed to assess teacher's attitudes toward stutterers. These items were gathered from various samples of attitude statements accumulated from the literature on stuttering, classroom teachers and speech pathologists. Each statement was followed by a statement from "agree" to "strongly disagree".

The purpose of this study was to assess the attitudes of the elementary classroom teacher toward stuttering and to examine the relationships of these attitudes to factors such as: knowledge of stuttering, number of years of teaching experience, age, and personal experience with a stutterer, either in the classroom or as a parent. Subjects included 100 elementary teachers and 33 certified speech-language pathologists. The Alabama Stuttering Knowledge (ASK) test was used to measure the classroom teacher's knowledge of stuttering. This test contained 26 true-false statements

chosen from the literature on stuttering. A higher score on this test indicated a more complete and accurate knowledge of stuttering.

The speech-language pathologists were asked to complete the TATS Inventory and the elementary teachers were asked to complete the TATS Inventory and the ASK test. Data analysis procedures were designed to determine the relationship that exists between the TATS Inventory and ASK test scores and between the TATS Inventory and the individual characteristics mentioned above as examined in the study.

Results indicated that a significant positive correlation existed between the TATS scores and the ASK scores. The difference demonstrated that the teachers with a greater knowledge of stuttering demonstrated more desirable attitudes toward stuttering. This result supports Crowe and Cooper's 1977 study that indicated a significant relationship between knowledge of and attitudes toward stuttering. A negative correlation was found between the presence of a stuttering child in the classroom and the attitude of the teachers. The teachers that were found to have a more positive attitude toward stutterers in the classroom were found less likely to have a stutterer in the classroom. No significant correlations were found between the teacher's TATS and ASK scores and the aforementioned characteristics examined by this study. Although these results are seemingly contradictory, it does not necessarily follow that the presence of a stutterer

in the classroom means accurate knowledge about stuttering.

The attitudes of communication disorders students toward stuttering was examined by St. Louis and Lass (1981). The purpose of this study was to expand upon the studies by Cooper (1975, 1979) in which the Clinician's Attitudes Toward Stuttering (CATS) inventory was devised and tested on speech pathology and audiology students. St. Louis and Lass (1981) used the CATS inventory to survey the professional knowledge and attitudes of students toward stuttering and to determine the extent to which those attitudes change as a function of the knowledge possessed about stutterers. The CATS inventory was designed to sample a variety of professional views regarding the nature of stuttering, the treatment of stuttering, and clinician competence and effectiveness. The CATS inventory is made up of 50 statements that can be grouped into several categories: etiology, parental factors, the stuttering symptom, the stutterer, therapy procedures, therapy effectiveness, and professional competence. The respondent is asked to circle a choice pertaining to the item, with possible responses ranging from "strongly agree" to "strongly disagree".

The CATS Inventories were sent to instructors at 40 Universities in 40 different states in the United States, which had both Audiology and Speech Pathology Undergraduate and Graduate programs. Participants responded to a short form pertaining to their class standing and their experiences with

stutterers. Of all respondents only 30% reported having a course devoted entirely to stuttering and less than 14% reported having direct contact with stutterers in their program. The majority of the respondents (54%-71%) responded positively to statements that stutterers have various personality problems. Respondents were uncertain about basic facts about stuttering such as "Most school age children spontaneously recover from stuttering". Responses indicated that most students viewed stuttering along the lines of Johnson's (1958) diagnosogenic theory. His theory states that over reaction to disfluent behaviors by parents result in the child developing into a stutterer. Only 21% of students felt that clinicians were adept at treating stutterers.

It was found that views on stuttering changed surprisingly little as a function of student training. This study revealed that many students view stuttering as a difficult problem to handle clinically and did not feel comfortable treating stutterers. The results of this study indicate that there is no systematic way the clinicians acquire information about stuttering. There is great variability in the acquisition and reliability of the information held by students and there is no consistent relationship between experience or knowledge about stutterers and stereotyping of stutterers.

The attitudes of university students and speech-language clinicians toward women and girls who stutter was examined by

Silverman (1982). Most studies examining attitudes about stutterers have focused on men and boys, finding undesirable personality characteristics such as "nervous, fearful, shy, and insecure" attributed to those who stutter. The attitudes toward women and girls had not been explored. The purpose of this study was to determine if stereotypes held about females who stutter are different than stereotypes about males who stutter. A modification of the bipolar adjectival scale used by Woods and Williams (1976) was used as the test instrument in this study. This semantic differential was used to obtain subject's reactions to eight hypothetical constructs: A Girl, A Girl who Stutterers, A Boy, A Boy Who Stutters, A Woman, A Woman Who Stutters, A Man, A Man who stutters. The two groups of subjects in the study consisted of 400 speech-language pathologists and 176 university undergraduates enrolled in an introductory communications course. All groups that stutter were found to be negatively different from the non-stuttering groups. None of the traits attributed to female stutterers were the same as those traits attributed to male stutterers, except for "excitable" which was attributed to both groups. The undergraduates considered the fluent and non-fluent hypothetical constructs to be more different than the speech-language clinicians. Stereotypes of females who stutter were found to be more prevalent on the whole than stereotypes of males that stutter for the clinicians, while the opposite held true for the undergraduates. The age of the stutterer held

stronger differences in stereotypes for the clinicians than for the undergraduates, whose stereotypes were found to be more constant over all hypothetical constructs. A significant finding was that the undergraduates found there to be no differences between the stuttering and non-stuttering female groups.

Overall, this study confirms the previous studies (Woods and Williams, 1971, 1976;Turnbaugh et al, 1979, 1981; St. Louis and Lass, 1981) that found that speech-language pathologists and university undergraduates have negative stereotypes of people who stutter. Also significant was the finding that the gender of the stutterer can impact the kind of stereotyping. The fact that speech language pathologists had the greatest negative reaction to female stutterers needs to be addressed in future research.

White and Collins (1984) hypothesize that stereotypes held about the stuttering personality are formed by "inference about the beliefs about the internal variables that accompany disfluencies resembling stuttering on occasions when they occur in normally fluent individuals". They put forth the idea that fluent people tended to stereotype stutterers using the characteristics they momentarily felt when having a normal dysfluency, nervousness or sensitivity for example. The subjects in the study were 80 college students, with an mean age of 18. The subjects were naive to the purpose of the study. The test instrument used was the 25 bipolar adjectival

rating scale used by Woods and Williams (1976). There were two testing conditions and each subject was exposed to only one. The differing factor was the instructions. One set of instructions told the subject to consider a hypothetical person who has a short period of stuttering after which he speaks fluently again. The other set of instructions told the subject to consider a hypothetical person who has a chronic and uncontrollable stutter. No definition of stuttering was given to either group. The participants were not told of the purpose of the study.

Comparison of results was made between this study and Woods and Williams (1976) study. Again it was found that stereotypes about stutterers are commonly held even by those who have adequate knowledge, such as speech-language pathologists. The authors hypothesize this stereotype could be well established before students enter professional training. Two possible ways this stereotype may be perpetuated are mentioned. One is that the stereotype may be a self-fulfilling prophecy (Turnbaugh et al. 1979). That is, a clinician's belief in a stereotype may induce clients to behave in a way consistent with it. Confirmatory testing is another possible reason. Confirmatory testing involves the psychological phenomenon in which people seek out and believe only the instances of behavior that confirm their belief about the subject. Further investigation is required to explore these possibilities. This suggests that the internal states of

normally fluent people during dysfluent speech happen to be negative.

The impact stuttering has on the employability of the stutterer was examined by Hurst and Cooper (1983). It specifically looked at the employers attitudes toward stuttering and the effects it could have on the hiring and promotion potential the stutterer may have. The Employer Attitudes Toward Stuttering Inventory (EATS) was mailed to 2719 personnel and industrial relations directors from the southeastern United States. While nearly 23% of personnel directors had interviewed a stutterer, only 14% had hired a stutterer. While 45% reported having no stutterers in their employment, 40% reported having 1-3 stutterers in their employment.

The EATS Inventory was developed to assess the attitudes of those who might employ stutterers. The employers were asked to rate the strength of their agreement to seven attitudinal statements from "strongly agree" to "strongly disagree". No attempt was made to assess the validity and reliability of the EATS Inventory on employers. While 22% of employers strongly disagreed with the statement that stuttering interferes with job performance, 5% strongly agreed with the statement. Totally, 30% of employers agreed that stuttering interfered somewhat with job performance. 36% of respondents agreed that stutterers should seek employment that required little speaking. It was found that a significantly higher percentage

of males disagreed with an affirmative action program for stutterers than female employers. Employers who did employ stutterers tended to disagree with the statement that stuttering interferes with job performance.

The authors mention that the finding that the majority of employers do not consider stuttering to interfere with job performance should be used in educational programs to increase public acceptance and understanding of stutterers. The majority of employers did agree that stuttering does interfere with promotional possibilities and 85% of employers agreed that stuttering decreases employability. These finding support Maxwell's (1980) conclusion that the vocational opportunities available to stutterers are restricted . The fact that employers that do employ stutterers are less inclined to feel it interferes with job performance is in contradiction to Crowe & Walton's (1981) study and St. Louis and Lass's (1981) study that concluded that exposure to stutterers does not necessarily decease stereotyping.

In Hurst and Cooper's 1983 study, vocational counselor's attitudes toward the rehabilitative potential of stutterers were examined. The purpose of the study was to asses vocational rehabilitation counselors' knowledge of and attitudes toward stuttering. A previous study found that vocational counselors felt that speech disorders in general and the problem of stuttering specifically to only be

moderately handicapping. The authors felt an examination of these attitudes to be warranted due to the potential impact of vocational counselors on stutterers career potential.

The Alabama Rehabilitation Counselors' Attitude Toward Stuttering (ARCATS) Inventory consists of 25 true-false statements designed to assess rehabilitation counselors' knowledge of stuttering and 15 statements to assess attitudes toward stuttering. The statements were constructed and ascertained as true or false based on a literature review of stuttering. No attempts were made to assess the validity or reliability of the ARCATS Inventory. 152 vocational rehabilitation counselors who were attending various meetings in Alabama completed the survey.

Results indicated that 19 of the 25 true-false statements pertaining to stuttering were answered correctly by more than half of the rehabilitation counselors. 76% of the counselors agreed with the statement that benefits almost always appear to be gained by stutterers in speech therapy. 50% of the counselors agreed that of all the various speech disorders, stuttering appears to be the most vocationally handicapping. Those counselors with stutterers on their caseload appeared to have a stronger view that stuttering is vocationally handicapping. Although these are negative views on the whole, in this context they can be positive due to the fact that the more handicapping counselors see stuttering, the more help he/she is willing to give them.

On the whole, rehabilitation counselors appeared to be relatively knowledgeable about stuttering. They were also found to hold the realistic view that although stuttering may be benefitted through therapy, the dysfluent behavior will not completely disappear. The results of this study are indicative of the fact that education about stuttering can benefit those who interact with stutterers by giving them a realistic, as opposed to stereotyped, view of stutterers. The personal interactions the rehabilitation counselors have with stutterers is key in their accumulation of realistic information pertaining to stutterers. The fact that people have realistic information about stuttering can also benefit the stutterer by removing the impact of harmful stereotypes from their daily lives. Stereotypes about the stuttering personality for both male and female children were investigated in a study by Horsley and FitzGibbon (1987). Young children were examined in this study for a number of reasons. Speech clinicians look at young stutterers differently because of the commonly held differentiation between "primary" and "secondary" stutterers. Primary stutterers are characterized by being relatively unaware of their dysfluencies and not displaying secondary characteristics. Primary stutterers also have a higher recovery rate of approximately 80%. Also, the majority of studies done on attitudes toward stutterers have focused on either men or young boys. This study looks at both male and

female children who stutter. For these reasons the authors felt it important to examine attitudes toward young children who stutter.

Thirty-one British speech clinicians and 64 student speech clinicians participated in the study. The subjects were divided into two groups, Group I with clinical experience of more than 10 years and Group II, with clinical experience of two to ten years. The student clinicians were divided into 7 groups, consistent with their current year of training. A group of primary school student teachers and qualified secondary school teachers acted as comparison groups.

The 25 item bipolar adjectival scale devised by Woods and Williams (1976) was used in this study. Eight hypothetical constructs were used in the study as follows : typical pre-school girl, typical eight-year old girl, typical pre-school girl stutterer, typical eight-year-old girl stutterer, typical pre-school boy, typical eight-year-old boy, typical pre-school boy stutterer, typical eight-year-old boy stutterer. Each participant completed a brief questionnaire as to the number of stutterers known and years of clinical experience. The participants were not aware of the purpose of the study and no description of the hypothetical constructs were provided.

Examining the sample as a whole, stuttering children were not viewed favorably as compared to non-stuttering children. There were statistically significant differences found for all four stimulus groups on all but five adjectives. Negative

traits associated with age groups were found to often be exaggerated by the characteristic of stuttering. Clinicians were found to be more moderate in their ratings than student clinicians. Two factors were constructed to analyze the overall "tenseness" and "pleasantness" of the ratings. The "Tenseness scale" found the adjectives "tense" and "anxious" as being rated "quite a bit" overall across groups. On the "Pleasantness scale" stuttering boys were found to be less pleasant overall compared to their non-stuttering peers.

As was found in previous studies (Crowe and Walton, 1981; St.Louis and Lass, 1981), the number of stutterers known did not have a consistent effect on the general stereotype held about stutterers. "Tenseness" characteristics were found to increase with age and pre-school stutterers of both genders were found to possess mostly characteristic associated with "Tenseness", such as shyness and self-consciousness. Females in general were viewed as being more pleasant than males, stuttering girls less so than their fluent counterparts. Among school-age children, boys were found to be the least pleasant. Stereotypes pertaining to young boys reported in Woods and Williams (1976) study were found to be consistent with those in the present study. Generally, this study concluded that the label "stutterer" elicits mostly negative judgments about the child at any age regardless of gender. Characteristics, such as gender and age, were found to impact the strength of stereotype. The educational process of student clinicians was

found to impact the strength of stereotypes in making them weaker. It was concluded that it is important for clinicians to be made aware of their own stereotypes through a self-evaluatory process.

Speech pathologist's perception of stutterers was again examined by Lass et al.(1989). This research addressed to what extent stuttering influenced the listener's judgement of non-speech characteristics of stutterers. A questionnaire was constructed by the authors in which the subjects were asked to list as many adjectives as they could that accurately described four hypothetical stutterers (male adult stutterer, female adult stutterer, male eight-year-old stutterer, female eight-year-old stutterer). The questionnaire was completed by 81 speech-language pathologists from Alabama, Louisiana, Texas, and West Virginia, the majority of whom were employed in the schools.

The overwhelming majority of adjectives used to describe stutterers were concerned with personality characteristics, very few pertaining to physical appearance or mental abilities. More traits were reported for both groups of male stutterers and nearly all of the traits reported for all groups were negative. "Shy", "nervous" and "frustrated" were among the most commonly reported traits. The average number of years of professional experience was 8.9 in the group questioned. The subjects had provided an average of 36.4 clinical service hours to stutterers over their professional

careers. This study confirms again the findings that predominantly negative perceptions of stutterers are held by communication disorder students (St.Louis & Lass, 1981; Silverman, 1982) and speech pathologists (Horsley & FitzGibbon, 1987;Silverman, 1982).

Patterson and Pring (1991) attempted to replicate the findings of Burley and Rinaldi (1986) which demonstrated a gender difference in which male listeners made more negative attributions toward stutterers than female listeners. The authors maintain that the results of the original study were inconclusive due to the lack of a control group of fluent speakers. Two groups of subjects were used, one rating stutterers and the other rating fluent speakers. An audio tape was played of two stutterers and non-stutterers, matched for age and English proficiency, were played. The subjects were asked to place a speaker on a seven point scale according to bipolar adjective items.

The mean rating scores for male and female listeners to fluent and dysfluent speakers showed a significant negative difference between ratings given to the two types of speakers. However, in terms of the gender bias, this study was unable to replicate the findings of the Burley and Rinaldi study (1986). This would indicate that although there are more negative stereotypes held by all people of stutterers compared to non-stutterers, the gender difference in the stereotypes held is questionable.

Lass et al. (1992) also examined perceptions of boy and girl stutterers. Elementary and secondary teachers and speech-language pathologists completed a questionnaire asking respondents to list adjectives describing four hypothetical stutterers. The four hypothetical groups were as follows : typical eight-year-old female stutterer, typical eight-year-old male stutterer, typical adult female stutterer, typical adult male stutterer. 103 elementary and secondary teachers and speech-language pathologists employed in West Virginia, Alabama, Louisiana, Pennsylvania and Ohio completed the questionnaire. 89.3% of the respondents had known stutterers. More than one-third of the respondents had never had a course in which the topic of stuttering was covered and 60.2% had never done any reading on the topic of stuttering. 63.1% of the respondents had stutterers in their classes. The average teaching experience was 10.3 years.

Considerably more traits were found for male than for female child stutterers and male child stutterers had the most adjectives reported overall. The large majority of the traits (67%) were found to be negative across all groups. The large majority of the adjectives reported were found across all four groups, with shy, nervous and insecure found to be the most frequently reported adjectives. All but one of the adjectives reported were negative in nature. These findings indicate that teacher's perceptions of stutterers are overwhelmingly negative. The fact that male child stutterers had the largest

number of adjectives reported could be related to the subject exposure, due to the 4:1 ratio of male-to-female school age stutterers.

The authors assert the idea that negative perceptions of school-age stutterers can adversely affect the education of these children and that the issue of stuttering stereotypes should be addressed through pre-service course work and continued education.

Cooper and Cooper (1992) summarized 20 years of research pertaining to speech-language pathologist's attitudes toward stutterers by comparing long-term data gathered over two decades. Attitudes of 1,198 speech-language pathologists toward stuttering, stutterers and their parents, therapy and related issues were studied between 1983 and 1991. Results of this study were compared with results gathered in an identical study conducted between 1973 and 1983.

The subjects participating in the study were taken from 22 states spanning the entire country. It was estimated that at least 75% of the subjects held graduate degrees in speech-language pathology. The Clinician Attitudes Toward Stuttering Inventory (CATS) (Cooper, 1975) was used to assess the attitudes. Eighteen significant comparative findings were found by the researchers. Stuttering is being viewed as more of a physiological disorder and early intervention was looked upon more favorably than in the past. The general Johnsonian point of view was less accepted in that parent's attitudes

toward stuttering was seen as less of a factor in stuttering etiology. The view that most stutterers have psychological problems became less prevalent as well as the notion that stutterers have distorted perceptions of their own social relationships. 87% of the speech-language pathologists participating in the study said that they felt more comfortable working with individuals with articulatory disorders than with stutterers. Nearly 90% of speech-language pathologists also agreed that teachers are not knowledgeable about handling stutterers in classroom situations.

This study demonstrates many positive trends in the attitudes of speech-language pathologists toward stutterers. Stuttering was also found to be viewed as less of a psychological disorder than it once was and that stutterers are not perceived as having distorted self-perceptions. This study indicates that change can occur in negative attitudes held by speech-language pathologists toward stuttering, although there is still a long way to go in reducing these detrimental perceptions.

Summary

In summary, these studies taken together overwhelmingly indicate that negative stereotypes about stutterers are held by every sect of society. More significant are the findings that speech pathologists are among the most steadfast of the stereotypers as well as students studying communication

disorders. Logic would seem to indicate that knowledge about stuttering or the number of stutterers known would have a positive impact on these stereotypes, but study after study refutes this logic. In some cases, it was found that knowledge of stutterers can increase the solidity of stereotypes held by professionals who educate and intervene with stutterers. Many authors suggest that this is due to the fact that stereotypes held about stutterers are established before current professionals enter their training programs and these clinicians unconsciously let their preconceived notions about stutterers affect their interactions with them. This is especially dangerous when these stereotypes come into play in the therapeutic setting.

Teachers, even those who have had some coursework on stuttering, have been found to negatively stereotype stutterers in his/her classrooms. Whether or not the teacher had a stutterer in their classroom did not have an impact on the stereotypes held by these teachers. Considering the fact that most people spend nearly 13 years in school during their childhood, this is a very significant finding. Many testimonials of adult stutterers include the fact that the most vivid negative messages pertaining to their speech they received in their childhood were in the classroom. Many point to this as the origin of their persistent low self-esteem about communicating.

Taken together, potential employers and rehabilitation

counselors can have a major impact on a stutterer's life either positively or negatively. Again, it was found that employers had negative views on the employabiIity of stutterers, stating that although stuttering may have a moderate impact on the actual hiring of the stutterer, employers feel it severely affects their potential for promotions. The job market is where stutterers feel the impact of stereotyping most strongly. In a society that values people based on their professional success, stutterers are encumbered not only by a communication disorder but also by inaccurate perceptions.

Vocational rehabilitation counselors, on the other hand, can be a vehicle with which the employer's stereotypes are reduced. These counselors reported that stutterers were good candidates for rehabilitative therapy and employment opportunities. They were also found to hold a realistic view of stutterers, resulting from a combination of education and contact with actual stutterers. This study is definitely a bright light in the dark background of the rest of society's perceptions of stutterers. It is also testimony that specific types of education is effective at reducing stereotypes.

Society as a whole was found to hold stereotypes not unlike speech pathologists, teachers, students, employers and counselors. The consistency of stereotypes held across society is a negative but also a positive in that if an effective means can be found to reduce these stereotypes, it

might also be effective for all people. In 1954, McDonald and Frick stressed the need for a program of public education to reduce inaccurate perceptions of stutterers. Research since then has defined exactly what the stereotypes are. Thus, the task at hand is to find the most effective ways to change such negative perceptions.

Purpose of the Study

The aforementioned studies illustrate the fact that negative stereotypes of stutterers do exist in all parts of society. Of significant concern are the stereotypes of speech pathologists, teachers and students of communication disorders. These professionals play a significant role in the intervention and rehabilitation of stutterers throughout their lifetime. Adequate education pertaining to fluency disorders is becoming jeopardized due to the 1993 ASHA guidelines that no coursework or clinical practicum with stutterers be required to attain or maintain the Certificate of Clinical Competence. This change in the standards applied to future professionals puts the quality of therapy provided for stutterers at risk. In essence, communication disorders students are able to receive a Master's degree in speech-language pathology without knowing the basic facts about stuttering, even though they will probably treat stutterers at some point in their careers. It is more imperative than ever to examine the impact of clinician's

stereotypes on their clients.

Three groups of students viewed educational material about stutterers. Group I viewed a video neutral to the topic of stuttering. Group II will receive lecture type material about stuttering. Group III will view a video portraying the "personal" stories of stutterers. Previous research indicates the need for education at many levels to remediate and limit the detrimental perceptions about stutterers. Most suggest pre-professional training as an appropriate forum for this to occur. Thus, it is the purpose of this study to determine if educational material can have an impact on negative stereotypes held by students in speech-language pathology.

Hypotheses

The hypotheses of this study are:

1. The group receiving lecture material about stuttering will show a significant positive change compared to the control group.
2. The group receiving personal story information about stutterers will show a significant positive change compared to the control group.
3. The personal story information will have greater influence in creating positive change than the lecture material.

CHAPTER 2 - METHODS

Subjects

The subjects of this study were 68 communication disorders students attending Michigan State University. The subjects were drawn from a pool of students enrolled in upper division undergraduate courses, the majority of whom were speech-language pathology majors. None of these students had had a formal course in fluency disorders but all had taken introductory coursework in which stuttering was addressed. In addition, the subjects were selected for inclusion in this study according to self-report, indicating they had none of the following: fluency disorder or close relationship with a stutterer, other speech-language disorders, other handicapping conditions (e.g. physical) and/or a hearing disorder. The 68 subjects were randomly assigned into three groups. Group I served as the control and consisted of 18 students. Groups II and III were the experimental groups, and consisted of 25 students each.

Procedures

Each subject had taken a questionnaire assessing attitudes toward stutterers (see next section heading) at least 5 days before the presentation of the educational material. Groups I, II and III received different types of educational material.

Three videotapes were shown, each approximately 30 minutes in length. Group I viewed a video tape addressing issues in medical speech-language pathology, chosen because it did not address the topic of stuttering. Group I was the neutral or control group. Group II viewed a video tape modeled after a typical lecture on stuttering as given to a introductory class in speech-language pathology. The content for this lecture was based on factual issues addressed in the ASK Questionnaire (see Literature Review). Areas covered about stuttering included: historical references, etiology, development, types and severity and treatment issues. This information was delivered by a professor with no communication disorder who normally teaches introductory courses within the department.

The content of the video tape presented to Group III consisted of personal stories of actual stutterers as related by adult stutterers and their families. The tape presented was edited from a professionally produced video entitled "Voices to Remember" about stuttering and its effect on individuals who stutter and their families. Segments were selected that represented a range of behaviors, severity of stuttering and educational/vocational experiences.

The videos were shown to each entire group at one setting. No additional information about the study was provided either before or after the video. Questions relating to the video tapes were not addressed. Immediately following

the video presentation, each subject completed the same questionnaire that was used to determine their attitudes about stutterers preceding participation in this study.

Questionnaire

The 25 item bipolar semantic differential format used in this study was the scale devised by Woods and Williams (1976)(refer to Appendix A for the complete scale). This type of 7 point scale has been frequently used in studies concerning stereotypes and has repeatedly been shown to be both reliable and easily administered (Snider and Osgood, 1969). The subject's task with this instrument was to rate a number of bipolar adjectives. This scale was constructed by selecting 25 traits which speech pathologists had most frequently used to describe stutterers in the research by Yairi and Williams (1970) and Woods and Williams (1971). These words were paired with antonyms selected from dictionary listings and graduate students' choices to form 25 items. Between each pair of words there were seven equal-appearing intervals that were unnumbered but captioned : "very much", "quite a bit", "slightly", and "neutral."

Since Woods and Williams (1976) devised this scale, many studies have either used it in its original form or modified it for a particular study. It was used in its original form by White and Collins (1984) and Horsley & Fitzgibbon (1987). Turnbaugh, Guitar & Hoffman (1981) and

Silverman (1982) made modifications by increasing the number of items. Crowe & Walton (1981) modified the original format to create the Teacher's Attitude Toward Stuttering Inventory (TATS), which retained the structural format of the original scale while changing the content to examine various aspects of teacher's attitudes toward stutterers. Likewise, St.Louis and Lass (1981) created the Clinician's Attitudes Toward Stuttering Inventory (CATS), retaining the original structure while changing the content to pertain to speech pathologist's attitudes toward stutterers. Hurst & Cooper (1983) did the same thing by changing the content to examine the attitudes of employers toward stutterers and created the Employer's Attitudes Toward Stuttering Inventory (EATS). The original form of this scale was used in this study to assess the communication disorders students attitudes toward stutterers.

Data Reduction/ Statistical Analysis

The 25 items in the questionnaire were analyzed in terms of similarity. Two raters independently sorted the adjective pairs according to common semantic connotations. Their groupings were integrated and formed a consensus, creating Types 1, 2 and 3. Type 1 included 7 items (#'s 2, 7, 9, 15, 16, 18, 22) and was labeled "Emotional Communication Traits" due to the emotional characteristics described by the adjectives (e.g. anxious vs. composed, afraid vs. content). Type 2 included 8 items (#'s 1,4,12,17,19,20,23, 24) and was

labeled "Situational Communication Traits" due to the situational character of the adjectives (e.g. loud vs. quiet, aggressive vs. passive). The items in Type 2 are situationally dependent, holding either positive or negative connotations depending on the situation. Type 3 had 10 items (#'s 3, 5, 6, 8, 10, 11, 13, 14, 21, 25) and was labeled "Inherent Communication Traits" due to the positive adjectives describing a better communicator (e.g. intelligent vs. dull, self-assured vs. self-conscious).

Subjects indicated scores (from 1 to 7) for each of the same 25 items on the pre- and post- video questionnaire. Scores from each individual item were then grouped into Types 1, 2 and 3, as described above. Six items (#'s 4, 6, 11, 12, 19, 25) were repolarized to give symmetry to the adjectives in each type. For example, item 4 is represented on the questionnaire by shy (far left) and bold (far right). For the analysis these two poles were inverted. Thus, a score of 5 would become a score of 3 and a score of 7 would become a score of 1. This then became consistent with other items within each type (e.g. open vs. guarded or daring vs. hesitant)(see Table 1 for the items within each type after repolarization). The raw data from pre- and post-video scores were then recorded.

Since the 25 item questionnaire was divided into three types (Emotional, Situational and Ideal), each type was treated as a separate dependent variable for the analysis of

variance. The ANOVA examined two factors. Group was a between factor (with three levels), assessing the effect of membership in the experimental and control groups. Pre-and post-testing was a within subjects factor, assessing the impact of the educational material on the subjects' individual perceptions of stutterers.

TABLE 1. Questionnaire items arranged according to Types.

TYPE 1 (Emotional)

2.	Nervous	Calm
7.	Tense	Relaxed
9.	Anxious	Composed
15.	Avoiding	Approaching
16.	Fearful	Fearless
18.	Afraid	Content
22.	Emotional	Bland

TYPE 2 (Situational)

1.	Open	Guarded
* 4.	Bold	Shy
*12.	Loud	Quiet
17.	Aggressive	Passive
*19.	Extroverted	Introverted
20.	Daring	Hesitant
23.	Perfectionistic	Careless
24.	Bragging	Self-derogatory

TYPE 3 (Inherent)

3.	Cooperative	Uncooperative
5.	Friendly	Unfriendly
* 6.	Self-assured	Self-conscious
8.	Sensitive	Insensitive
10.	Pleasant	Unpleasant
*11.	Outgoing	Withdrawn
13.	Intelligent	Dull
14.	Talkative	Reticent
21.	Secure	Insecure
*25.	Flexible	Inflexible

*** Items shown as repolarized in Table 1**

CHAPTER 3 - RESULTS

It was hypothesized that Group II (lecture) would show a more positive change in perceptions of stutterers than the Group I (control). It was also hypothesized that Group III (personal stories) would show greater positive change than both Groups I and II.

The measurement of positive change is unique to each individual type. The desired direction of movement within each type was determined by two raters, making independent judgements about ideal movement. Positive movement in Type 1 (Emotional) is indicated by a move from a lower to a higher number (e.g. away from "tense" while moving towards "relaxed"). In Type 2 (Situational), a central/neutral value is the most positive answer, since these adjectives are dependent on individual circumstances. This means that the positive connotation of these adjectives varies according to how appropriate they are to a given situation. For instance, in the case of "open-guarded", it might be appropriate to be open in some situations but not in others. Therefore positive movement is reflected when the post-video response moved closer to 4.0, the central score on the scale of 1-7. Positive change in Type 3 is indicated by movement from a higher number to a lower number (e.g. moving away from "unfriendly" toward "friendly"). As the overall amount of positive change is discussed, it is important to consider

these differences in the indication of positive change. The overall results are displayed in Table 2, where the 3 types represent the consolidation of the 25 item questionnaire. The 3 groups represent subjects viewing different educational material and pre- and post-video scores from the same questionnaire before and after the educational material was presented. The ANOVA summary tables are presented in Table 3.

Essentially no overall change was found in Type 1 (Emotional Communication Traits) for the control group (Group I) in pre- and post-video responses. Subjects' scores moved .01 after viewing the neutral video tape, from 3.07 to 3.08. On the same type, Group II (lecture) made a change of -.19, moving from 2.99 to 2.80. Group III (personal stories) moved -.15, from 3.19 to 3.04, in Type 1. Although the control group was very stable on this type, while the two Experimental Groups demonstrated a negative movement, there were no statistically significant findings for Type 1, as determined by the analysis of variance.

Type 2 (Situational Communication Traits), Group I (control) demonstrated the largest movement in this type, with a .29 movement in the positive direction, from 4.95 to 4.66. Type 2, Group II (lecture) moved .15 in the positive direction, from 4.63 to 4.48. Type 2, Group III (personal stories) demonstrated a positive change of .06, from 4.55 to 4.49. Statistical significance at the .03 level in the positive direction between pre- and post-video responses was

TABLE 2. Means, standard deviations (in parentheses) and differences between pre- and post-video scores across the three types for each group.

	PRE-VIDEO	POST-VIDEO	DIFFERENCE
TYPE 1 (Emotional)			
Group I	3.07 (.67)	3.08 (.67)	+ .01
Group II	2.99 (.56)	2.80 (.66)	- .19
Group III	3.19 (.62)	3.04 (1.06)	- .15
TYPE 2 (Situational)			
Group I	4.95 (.50)	4.66 (.77)	+ .29
Group II	4.63 (.47)	4.48 (.49)	+ .15
Group III	4.55 (.53)	4.49 (.88)	+ .06
TYPE 3 (Inherent)			
Group I	3.84 (.51)	3.83 (.50)	+ .01
Group II	3.68 (.60)	3.98 (.58)	- .30
Group III	3.86 (.61)	3.50 (.89)	+ .36

TABLE 3. Analysis of variance summary table for the two-factor design for each of the three types

Source	Sums of Squares	Degrees of Freedom	Mean Square	F-Ratio	p
TYPE 1 (Emotional)					
A (group)	1.38	2	.69	0.83	0.441
S (A)	53.99	65	.83		
B (pre/post)	0.48	1	.48	2.07	0.155
AB	0.21	2	.10	0.45	0.641
Error	15.04	65	.23		
Total	71.10	135			
TYPE 2 (Situational)					
A (group)	2.02	2	1.01	1.63	0.203
S (A)	40.18	65	0.62		
B (pre/post)	0.84	1	0.84	5.17	0.026*
AB	0.28	2	0.14	0.86	0.427
Error	10.53	65	0.16		
Total	53.84	135			
TYPE 3 (Inherent)					
A (group)	0.70	2	0.35	0.56	0.575
S (A)	40.62	65	0.62		
B (pre/post)	0.03	1	0.03	0.13	0.718
AB	2.64	2	1.32	6.91	0.002*
Error	12.43	65	0.19		
Total	56.42	135			

* statistically significant

demonstrated for Type 2, overall. That is, there was a positive change across all groups that moved closer to the central value of 4.0, after presentation of all educational material.

Type 3 (Inherent Communication Traits), Group I (control) also showed consistency from pre- to post-test responses, with a .01 movement from 3.84 to 3.83. This again demonstrates little change in attitudes from the subjects as a result of the neutral video. However, Type 3, Group II, moved from 3.68 to 3.98, indicating a negative overall change in perceptions of stutterers of .30 resulting from the lecture video tape. Type 3, Group III (personal stories) demonstrated a change of .36 in the positive direction, from 3.86 to 3.50. This is the greatest positive change seen in any group in this study. The ANOVA revealed that Type 3 resulted in no statistically significant main effects, but a significant interaction between groups and pre- and post-video responses at the .002 level.

The hypothesis of this study revolved around the effect that different types of educational material would have on the perceptions of stutterers, as illustrated in Figure 1. Regarding Type 1, the educational material about stuttering in Groups II and III showed a negative, though not statistically significant, movement compared to the control group. Even though statistical significance was found in Type 2, it does not have direct bearing on the hypothesis. This is due to the

fact that this type was not stable as indicated by a .29 change in the control group between pre-and post-scores. It would be expected that little or no change would occur when neutral material was presented. Thus, the smaller changes that occurred in Groups II and III are overshadowed by the large change that occurred in the control group (Group I).

Type 3 reflected the most change related to the viewing of educational materials. The control group (Group I) was stable while Group II (lecture) showed a negative movement and Group III (personal stories) showed a large positive movement. A Neuman-Keul's analysis on the pre-post differences revealed that although the two experimental groups were not statistically significant from the control group, the two experimental groups were statistically different from each other at the 0.05 level.

Thus, compared to the control group, the lecture material shown to Group II had a negative impact on the perceptions of stutterers, opposite of what was hypothesized. However, the personal stories shown to Group III had a positive impact regarding stutterers ideal personality traits, which supported one of the hypotheses.

Figure 1. Amount of Change (positive or negative) between pre- and post-video across the 3 types and the 3 groups.

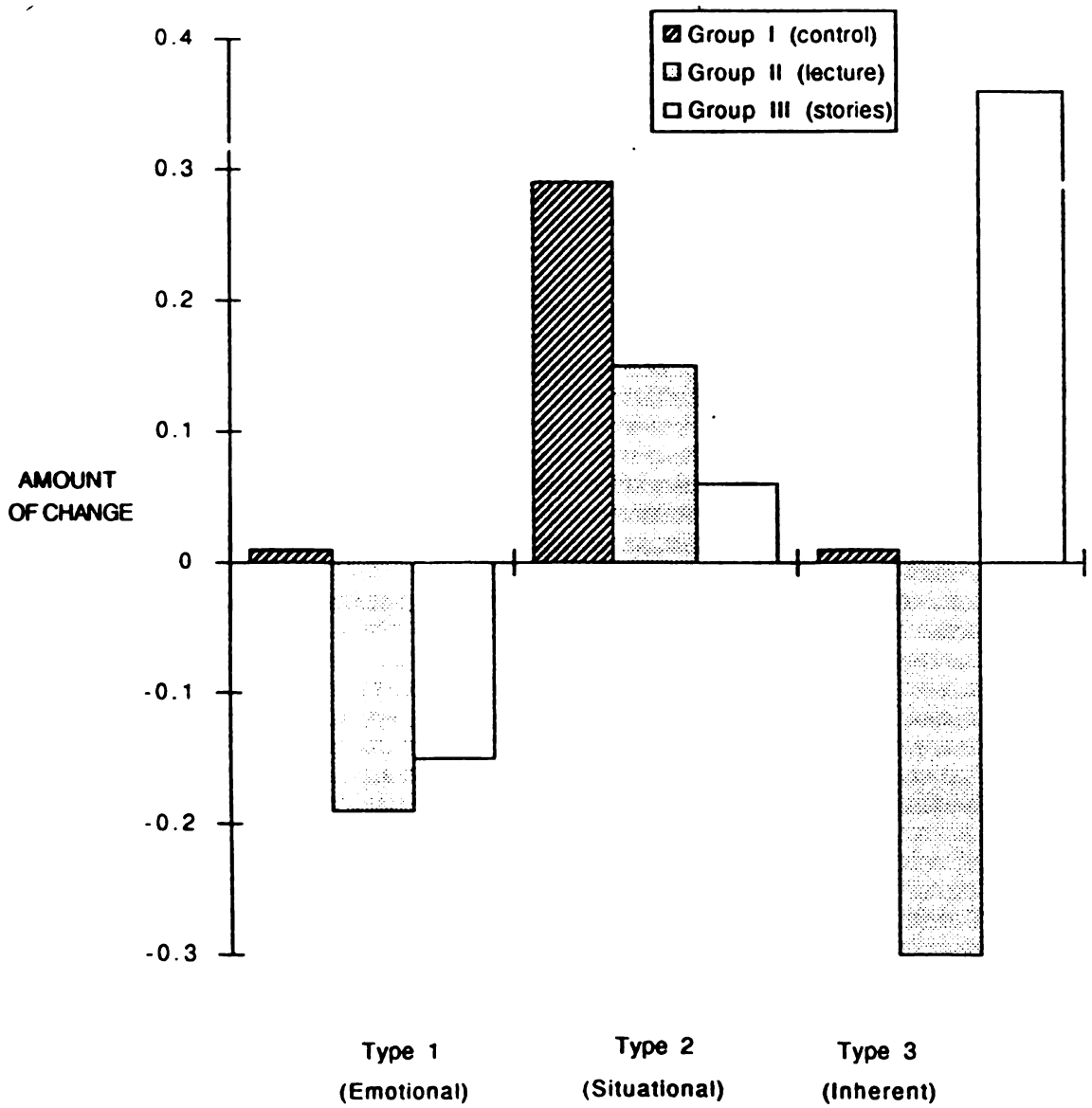
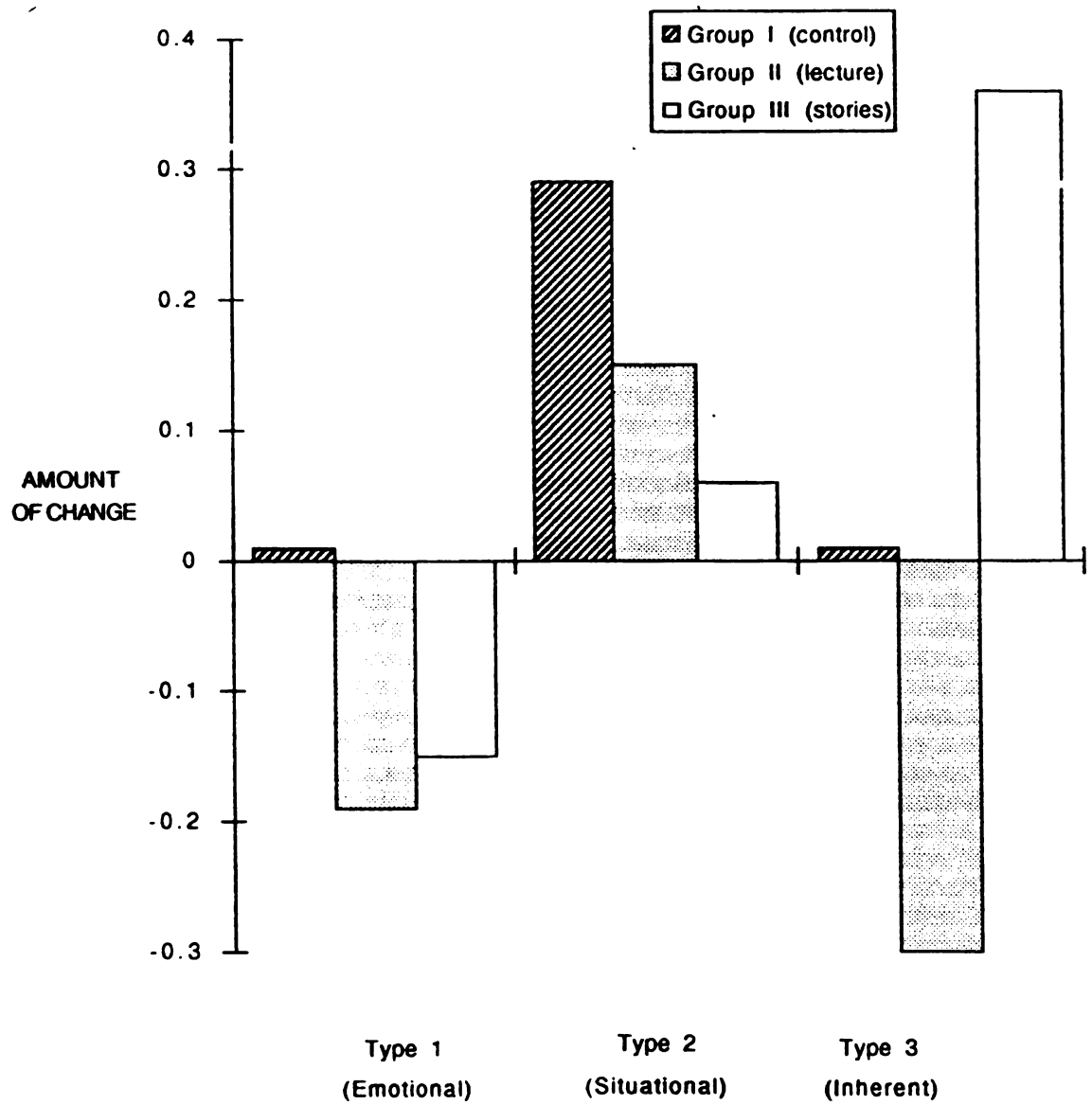


Figure 1. Amount of Change (positive or negative) between pre- and post-video across the 3 types and the 3 groups.



CHAPTER 4 - DISCUSSION

Conclusions

An examination of the types as they were clustered for the purpose of this study reveals three different scopes on human communication. Type 1 (Emotional Communication Traits) contains adjectives that describe aspects of human behavior that are affected by change in emotions (e.g. Item 2, Nervous-Calm). A person would generally want to be calm, but emotions interfere and often shift them closer to the other end of the scale, nervous. This may be a more negative way to be perceived, but is a human response to a stressful situation. No one would claim to be in a constant calm state. The other traits in this type are also consistently influenced by an emotional state of being. When a stutterer is placed into a speaking situation, it is normal for him/her to have more negative emotions than a non-impaired communicator, because of past failures that have been endured. Therefore, in the analysis of subject's perceptions of stutterers in terms of Emotional Communication Traits, it would not be expected that information about or interaction with stutterers themselves would necessarily create more positive perceptions, only more realistic perceptions. Again,these realistic perceptions are not necessarily positive.

The results of the statistical analysis support this belief. It was found that Group II (lecture) within Type 1

(Emotional), did not have positive changes in attitude toward stutterers as a result of the introductory videotaped lecture on stuttering. The existing negative perceptions of stutterers as "emotional" communicators is demonstrated through the mean response in pre-testing as being to the left of neutral, in this case 2.99 in the negative direction. The post-test revealed the perceptions to change to a minimally more negative score, to 2.80. This overall negative perception simply indicates that speech-pathology students do have negative perceptions of stutterers as "emotional" communicators and that the type of material these students are typically given about stutterers (as demonstrated in the "lecture" video) are consistently negative. Once again, it is important to remember that these views are realistic within Type 1, being that stutterers are more emotional communicators by nature of their impairment.

Following this same logic, it would not be expected that the personal stories video shown to Group III, Type 1, would create positive changes in stereotypes. This tape, the most realistic portrayal of stutterers given to any group, shows stutterer's emotions about their speech impairment. Stutterers in this tape were shown discussing both positive and negative emotions about stuttering. The analysis revealed that these personal stories created a negative, though not statistically significant, .15 change in the post-test, from 3.19 to 3.04. This could be the result of the subjects seeing

stutterers in a realistic light, as impaired people with vulnerabilities and insecurities about speaking. This probably served to confirm Group III's slightly negative perceptions of stutterers as "emotional" communicators.

Type 2 (Situational Communication Traits) is comprised of adjectives that describe communication traits that are variable according to situation. These "situationally dependent " adjectives are polarized according to extreme behaviors, with neither adjective having a definite positive or negative connotation. In cases of adjectives like item #4, bold-shy, it would depend on the situation as to whether it would be more ideal to be bold or more ideal to be shy. Realistically, an effective communicator would be found to be halfway between these two characteristics. Therefore, 4.0 on a 1-7 scale was chosen as the most positive answer in this case, and analyzed accordingly.

It is important in the discussion of Type 2 that the grouping of adjective pairs be taken into account. As the authors of this study were clustering questionnaire items for analysis, it was Type 2 that seemed to have the least cohesiveness overall. Contained in it were the items that did not easily fall into the other two categories. This dimension therefore is the most loosely defined in terms of the connotation of the adjectives (e.g. "daring" and "hesitant" were grouped with "perfectionistic" and "careless"). Therefore, it would follow that the scores within Type 2

would provide the least coherent statistical information. The analysis revealed this to be true. The neutral videotape shown to the control Group I created a .29 change in attitudes toward stutterers in the positive direction, from 4.95 to 4.66. The fact that this great of a positive change in perceptions of stutterers would result after a video not addressing stutterers or stuttering at all would indicate that the items within this factor were not well constructed to form this type. If Group I subjects within Dimension 2 had been more stable (as in Types 1 and 3) this would have had more importance in the overall analysis of positive change. Since Control Group (I) had a positive change of .29 (the second largest positive movement), Dimension 2 cannot be seriously considered as important in the overall analysis of positive change in perceptions. It can then be concluded that the statistical significance found in the main effect cannot be considered in measuring the overall amount of positive change, created by the educational material, since all of the videos produced a positive change in this area.

Type 3 (Inherent Communication Traits) is comprised of adjectives that describe communication traits on one side that individuals ideally like to exhibit and their opposites on the other. When examining item #6, self-assured-self-conscious, it is clear that when communicating people would rather appear self-assured than self-conscious. The other items within Type 3 are similarly constructed. Of the three dimensions clustered

for the purposes of analysis, this is the one that is not dependent on situation or inner feelings to exhibit itself. Thus, the positive adjectives within Type 3 are characteristics that are inherent within the communicator and demonstrate themselves in communicative contexts in a number of ways.

The Group I (Control) ratings in Type 3 were almost identical between pre-and post-testing, moving from 3.84 to 3.83. The fact that there was nearly no change between the pre-and post-test indicates that the results of the other two groups are strong indicators of the impact of the educational material. After viewing the lecture video tape, Group II demonstrated a negative change in perceptions of -.30, from 3.68 to 3.98. This large of a change in the negative direction indicates that the typical type of material speech-pathology students are given in their introductory coursework may create negative change in perceptions about stutterers. This reinforces what was found in Type 1 (Emotional), Group II (lecture), where a negative change of .19 was indicated after the video tape was shown.

Although it is not the hypothesis of this study that lecture material would create greater negative perceptions of stutterers, the fact that the perceptions of stutterers were found to be negative overall should not be a surprise. Randomly sampled students in no specific major were found to have negative perceptions of a "typical individual who

stutters" when contrasted with a "typical individual who is normally fluent" (Turnbaugh, Guitar & Hoffman, 1981). St. Louis and Lass (1981) found that speech-language pathology students' views on stuttering changed very minimally as a function of their training and indicated that there is no systematic way that clinicians acquire information about stutterers. Stereotypes about stutterers are held even by those who have knowledge of the disorder as reported by White and Collins (1984). "Shy","nervous" and "frustrated" were the most commonly reported traits teachers indicated about stutterers (Lass et al. 1989). Cooper & Cooper (1992) indicated that clinician's attitudes can positively change, but the process is slow and there is still a long way to go.

The majority of speech-language pathologists who have learned about stuttering have received the type of information in our lecture video, shown to Group II. As the research shows, this does not create positive views on stutterers, and could possibly make them more negative. It seems logical that learning about only about "stuttering" as opposed to "stutterers" would not put the people behind the disorder in a positive light. Since many speech-language pathology curricula focus on the disorder instead of the person, perhaps it is this imbalance that allows negative perceptions to persist in spite of education.

The aforementioned issue is upheld in the amount of positive change found in Type 3, Group III. When the personal

stories tape was shown to this Group, it created a positive change of perception of .36, from 3.86 to 3.50. This is the largest positive change found in the study and indicates that interaction with the object of the stereotype does create the greatest amount of positive change in perceptions of stutterers.

Implications for Future Research

While the Woods and Williams questionnaire (1976) was used for this study in its original form, there were modifications made that differentiate the results of this research from other studies that used this same scale. Upon close examination of past research, it was noted that other studies had not repolarized the items for the purposes of analysis. Since this had not been done, the overall means calculated by previous researchers cannot be perceived as having a definite positive or negative connotation. This is probably attributed to the fact that previous investigators were only looking at the kinds of adjectives used to describe stutterers and not examining the modification of these perceptions. The results of some studies that did attempt to calculate overall means from these items should be critically examined with this in mind.

Another structural modification that differentiates this research from most previous research using the same scale is the decision to group the individual items into types and

conduct the analysis based on the descriptive statistics of these groups. Horsley & Fitzgibbon (1987) used a similar structural modification, breaking 18 of the items down into 2 scales, the "Tenseness Scale" and the "Pleasantness Scale". The dimensions created for the current study were determined after close examination of the individual items revealed there to be vast differences in the implication of the adjectives between each item. There was, however felt to be three general connotations held by the items and they were grouped accordingly into Types 1,2 and 3. The utility of this endeavor bore itself out in the results of the pre-and post-test analysis. The means were very similar within each type but also different between each type. Also the amount of change found within the types would not have been indicated if only the mean for the entire scale were examined. Therefore there are not any valid comparisons that can be made between this research and previous research using this same scale, since three values were obtained for each questionnaire instead of one.

It should be noted, however, that the grouping of the items into types was not without difficulty. Some items were more easily categorized than others and this resulted in Type 2 being not as cohesive overall in the connotation of the adjectives. This did create problems in the analysis, as Type 2 was unreliable from pre- and post-testing. More reliable ways of grouping the items needs to be further investigated.

This study originated from a review of the literature about perceptions of stutterers. Many articles reported the negative adjectives used to describe stutterers (Woods & Williams, 1971, 1976; Turnbaugh, Guitar & Hoffman, 1981.) Other articles reported negative stereotypes held by teachers (Crowe & Walton, 1981; Lass et al., 1992), employers (Hurst & Cooper, 1983), communication disorders students (St. Louis & Lass, 1981) and clinicians (Yairi & Williams, 1970; Woods & Williams, 1971, 1976; Turnbaugh, Guitar & Hoffman, 1979; Lass, et al., 1989; Cooper & Cooper, 1992). Only one article reported positive perceptions of stutterers, Hurst & Cooper's 1983 research examining vocational counselor's perceptions of stutterers. This research found that although vocational counselors felt stuttering to be significantly vocationally handicapping, they felt that stutterers were good candidates for rehabilitation. There were positive findings related to vocational counselor's perceptions of stutterers. This could be related to the fact that personal bias awareness is part of their training.

A review of this literature led to the question of what are we going to do about these stereotypes? This study indicates that when intervention is implemented, these stereotypes can be changed. It was also implied that the lecture material students receive in their course work does not teach them about the stutterers themselves but about stuttering, the disorder. Academic programs cannot assume

that students come to their programs with no stereotypes, or that information given in introductory courses will alleviate any existing stereotypes. Indeed, even experienced speech-language pathologists hold negative perceptions of stutterers (Lass, et al., 1989). The new ASHA regulations do not require speech-language pathology students to have clinical contact with, or coursework dealing with stutterers. It follows that speech-language pathologists in the field could have had no contact with stutterers to refute any negative perceptions they might have. In addition, the majority of speech-language pathologists will probably treat stutterers at some point in their careers.

The 30 minute video tapes shown to Groups II (lecture) and III (personal stories) both created change between pre- and post-testing. Although the amount of change was about 1/3 of a point, this change was found to be a result of the educational material presented. If 30 minutes of material can create even a small change, longer and more interactive forms of educational material should create even greater change. However, whether such perceptual shifts were maintained over time was not inherent to this study and should be investigated further. This study shed some light on the numerous ways we can change perceptions that may be detrimental to our intervention with all individuals with disorders. Researchers need to find the most effective ways to help our field see the person behind the disorder.

Appendix A. Bi-Polar Questionniare

Woods & Williams (1976) Semantic Differential Scale

Please indicate where you would rate a typical stutterer on the following 1-7 scale:

1=very much
2=quite a bit
3=slightly
4=neutral
5=slightly
6=quite a bit
7=very much

1.	1	2	3	4	5	6	7
	Open						Guarded
2.	1	2	3	4	5	6	7
	Nervous						Calm
3.	1	2	3	4	5	6	7
	Cooperative						Uncooperative
4.	1	2	3	4	5	6	7
	Shy						Bold
5.	1	2	3	4	5	6	7
	Friendly						Unfriendly
6.	1	2	3	4	5	6	7
	Self-conscious						Self-assured
7.	1	2	3	4	5	6	7
	Tense						Relaxed
8.	1	2	3	4	5	6	7
	Sensitive						Insensitive
9.	1	2	3	4	5	6	7
	Anxious						Composed
10.	1	2	3	4	5	6	7
	Pleasant						Unpleasant
11.	1	2	3	4	5	6	7
	Withdrawn						Outgoing
12.	1	2	3	4	5	6	7
	Quiet						Loud
13.	1	2	3	4	5	6	7
	Intelligent						Dull
14.	1	2	3	4	5	6	7
	Talkative						Reticent

15. 1 2 3 4 5 6 7
Avoiding Approaching

16. 1 2 3 4 5 6 7
Fearful Fearless

17. 1 2 3 4 5 6 7
Agressive Passive

18. 1 2 3 4 5 6 7
Afraid Content

19. 1 2 3 4 5 6 7
Introverted Extroverted

20. 1 2 3 4 5 6 7
Daring Hesitant

21. 1 2 3 4 5 6 7
Secure Insecure

22. 1 2 3 4 5 6 7
Emotional Bland

23. 1 2 3 4 5 6 7
Perfectionistic Careless

24. 1 2 3 4 5 6 7
Bragging Self-derogatory

25. 1 2 3 4 5 6 7
Inflexible Flexible

APPENDIX B. Pre- and post-video scores for each subject within Types 1, 2 and 3.

DIMENSION 1 (Emotional)

Group I (Control)			Group II (Lecture)			Group III (Stories)		
Sb	PRE	POST	Sb	PRE	POST	Sb	PRE	POST
1	2.71	3.14	1	2.29	1.57	1	2.86	4.00
2	3.28	3.29	2	3.29	2.42	2	3.64	3.43
3	3.14	3.29	3	2.86	3.42	3	2.71	2.43
4	2.43	1.86	4	2.86	2.71	4	3.57	2.43
5	2.29	2.14	5	2.86	3.43	5	2.00	1.29
6	2.43	3.29	6	3.57	3.00	6	2.71	2.71
7	2.57	3.14	7	3.00	2.86	7	3.00	2.14
8	4.71	4.43	8	2.86	3.29	8	3.29	5.29
9	3.43	3.29	9	2.57	3.14	9	4.00	2.86
10	2.29	2.14	10	3.57	2.42	10	3.29	2.86
11	2.86	2.86	11	2.29	1.14	11	3.29	1.29
12	3.43	2.71	12	3.29	3.43	12	3.86	3.86
13	3.14	3.14	13	3.14	3.14	13	2.29	2.43
14	3.57	3.57	14	2.71	2.86	14	3.43	4.29
15	2.29	2.29	15	3.14	3.00	15	3.43	5.14
16	4.14	3.86	16	3.71	3.00	16	3.71	3.86
17	3.29	3.14	17	3.86	3.29	17	3.14	3.29
18	3.29	3.86	18	2.86	2.86	18	4.43	3.43
			19	2.43	2.86	19	4.00	3.14
			20	2.42	3.14	20	2.86	2.71
			21	3.86	4.14	21	3.57	3.14
			22	3.43	3.29	22	2.86	3.29
			23	3.14	2.57	23	2.71	1.71
			24	1.43	1.00	24	3.14	3.57
			25	3.14	3.00	25	1.86	1.43
Mean	3.07	3.08	Mean	2.99	2.80	Mean	3.19	3.04
S.D.	.67	.67	S.D.	.56	.66	S.D.	.62	1.06

APPENDIX B (continued)

DIMENSION 2 (Situational)

Group I (Control)			Group II (Lecture)			Group III (Stories)		
Sb	PRE	POST	Sb	PRE	POST	Sb	PRE	POST
1	5.38	4.88	1	5.50	5.37	1	3.75	2.63
2	4.00	4.38	2	5.12	4.63	2	3.75	4.00
3	4.88	5.13	3	4.63	4.25	3	4.50	5.00
4	5.38	5.38	4	4.63	4.38	4	4.37	4.50
5	5.25	4.38	5	4.63	4.25	5	5.38	6.25
6	5.25	5.13	6	4.13	4.50	6	5.00	5.25
7	5.63	5.25	7	5.00	4.12	7	4.38	4.63
8	4.25	2.50	8	4.63	4.75	8	4.63	3.25
9	4.50	4.38	9	5.00	4.25	9	3.75	5.38
10	5.63	6.00	10	3.88	4.62	10	4.63	4.50
11	5.38	5.13	11	4.50	5.37	11	5.25	5.90
12	5.13	4.25	12	4.38	4.12	12	4.37	3.90
13	4.88	4.88	13	5.00	4.50	13	4.75	5.12
14	4.50	4.50	14	5.62	4.75	14	4.13	3.50
15	5.13	5.13	15	4.38	4.75	15	3.75	2.75
16	4.13	3.88	16	4.63	4.25	16	4.00	3.87
17	5.00	4.88	17	5.00	4.50	17	4.63	4.50
18	4.88	3.88	18	3.88	3.88	18	3.88	4.50
			19	4.63	5.13	19	4.75	4.25
			20	5.13	5.38	20	5.00	5.38
			21	4.25	4.13	21	4.75	4.60
			22	3.88	3.38	22	4.88	4.37
			23	4.38	4.25	23	5.25	4.62
			24	4.13	3.75	24	4.75	4.25
			25	4.88	4.63	25	5.37	5.25
Mean	4.95	4.66	Mean	4.63	4.48	Mean	4.55	4.49
S.D.	.50	.77	S.D.	.47	.49	S.D.	.53	.88

APPENDIX B (continued)

DIMENSION 3 (Inherent)

Group I (Control)			Group II (Lecture)			Group III (Stories)		
Sb	PRE	POST	Sb	PRE	POST	Sb	PRE	POST
1	4.30	3.70	1	4.10	4.20	1	2.90	1.60
2	3.60	3.60	2	3.30	3.80	2	2.95	2.90
3	3.60	3.70	3	4.00	4.10	3	4.20	3.70
4	4.20	3.50	4	4.00	4.40	4	4.40	3.40
5	4.20	3.60	5	4.00	4.10	5	4.70	4.60
6	4.10	4.50	6	4.00	4.00	6	4.20	3.80
7	4.00	4.00	7	4.50	3.80	7	4.10	2.50
8	2.50	2.90	8	3.30	3.60	8	4.10	1.60
9	4.50	4.10	9	3.30	3.10	9	2.60	4.20
10	4.20	4.30	10	3.10	4.40	10	3.40	2.90
11	3.90	4.50	11	4.00	4.70	11	4.20	3.70
12	3.40	4.10	12	3.10	5.10	12	4.20	3.80
13	3.30	3.30	13	4.50	4.30	13	4.50	4.80
14	3.70	3.80	14	4.50	4.40	14	3.20	2.90
15	4.50	4.50	15	3.60	3.90	15	2.60	1.80
16	3.50	3.10	16	4.20	4.20	16	3.80	3.90
17	4.20	4.40	17	3.20	3.00	17	4.30	4.40
18	3.40	3.30	18	2.90	3.60	18	3.50	3.80
			19	4.00	4.20	19	3.70	4.10
			20	4.20	4.60	20	4.10	3.30
			21	2.70	2.50	21	4.20	4.20
			22	2.90	3.80	22	4.00	3.50
			23	2.50	3.40	23	3.80	3.90
			24	4.10	3.70	24	4.70	4.30
			25	4.10	4.50	25	4.20	4.00
Mean	3.84	3.83	Mean	3.68	3.98	Mean	3.86	3.50
S.D.	.51	.50	S.D.	.60	.58	S.D.	.61	.89

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