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A study of the attitudes of nondisabled students toward their severely disabled peers before and after inclusive intervention

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A STUDY OF THE ATTITUDES OF NONDISABLED STUDENTS TOWARD THEIR SEVERELY DISABLED PEERS BEFORE AND AFTER INCLUSIVE INTERVENTION

by
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ABSTRACT

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1996
Thesis Advisor: Dr. S. Jay Kuder
Master of Arts in Special Education

The purpose of this study was to determine if the attitudes of nondisabled students toward their severely disabled peers could be positively affected following their involvement within a public school inclusion activity. The hypothesis was that the inclusion activity would result in positive attitude changes.

Two separate groups of nondisabled students were used for this study. The fifty-two students in Group One were 9th through 12th grade members of a high school band class. Group Two was made up of seventeen 7th graders of an instrumental music class. Both groups were located in suburban type school districts with a variety of ethnicity, though the greatest percentage was Caucasian.

A pretest and posttest of Yuker's Attitude Toward Disabled Persons Scale was administered to both groups prior to and preceding an inclusive activity intervention. Intervention involved the inclusion of a severely disabled student within the class activity of the nondisabled students.

Pretest and posttest results were calculated, compared and presented in frequencies and mean scores.

Findings from the study conclude that attitudes of nondisabled students can be positively changed toward their severely disabled peers through inclusive activities. Specific indications however, showed that Group Two results were more significant and that distinct variables were likely to contribute those indications.

MINI-ABSTRACT

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The results indicated that positive attitude changes did occur in both groups studied, however due to distinct variables, one group's results were more significant.

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CHAPTER ONE

INTRODUCTION

Attitudes of an individual or group of individuals can be a powerful force. The attitudes of some can greatly influence or impact the attitudes of others spilling into a larger group or society itself. Obstacles that many of us encounter are as a direct result of the mind set or attitudes of society; evidenced by religious persecution, racial prejudice and discrimination of the disabled, to name a few. Such negative attitudes carry over into specific actions that significantly impact the lives of these group members. It was not until the legal system put in place such previously mentioned laws to override the attitudes of those not eager to change willingly. However effective the laws may be, compliance to issues of conflict are not nearly as effective as they might be when the attitudinal beliefs equally support those laws.

My observations during inclusive education activities are that generally the attitudes of non-disabled students toward the severely disabled student is one of bewilderment, misunderstanding and fear of the unknown. Further observations indicate that elementary students are more likely to ask questions concerning the severely disabled student. These questions usually lead to a better understanding of the students' disability as well as the student personally. Exposing the non-disabled student to the disabled student provides them with a clearer understanding of the disabled which can lead to less apprehensiveness and more interaction. Interaction such as greeting the disabled student by name rather than ignoring the

student. This greeting provides sensory input for the disabled student as well as self awareness through peer acknowledgment. It is also indicative of an attitude change of the non-disabled student in how he chooses to greet the disabled student.

Dr. Rubenfeld (1995), a one time special education student states that non-disabled students having no contact with disabled students tend to reflect the attitudes of the adults who influence their lives. Should one never experience having a disabled peer learn or play alongside them, the wrong message is received. The message may be that disabled individuals are not worthy and consequently when those non-disabled students become business owners or agency directors, the disabled will not be among their employee roster - one of many important reasons to acquaint non-disabled students with the disabled early on. Therefore, the research question to be examined in this study is, will attitudes toward the disabled be changed through personal contact with severely disabled students within public school inclusion activities? My hypotheses to this question is that in fact school inclusion activities will facilitate a positive attitudinal change among non-disabled students toward their severely disabled peers.

For the purpose of this research, the term severely disabled refers to those students with significant mental retardation, whose functioning abilities, though seriously limited, do exhibit diverse levels of limitations. Severely disabled students used in this research study are specifically described as generally having non-verbal language skills, some receptive skills and minimal or no expressive capabilities of any type. Physical status ranges from ambulating with some health issues to non-ambulatory students with extreme physical, neurological and medical problems. Exhibitions of self help, daily living skills also are few, needing physical assistance to complete most tasks, while some require total care from others as their abilities are likened to a newborn infant.

Non-disabled students are those who regularly attend the public school and are members of the class where the inclusion activity takes place. It is necessary to make this distinction as non-disabled class members may in fact have a disability not readily identifiable or known to this researcher.

The term inclusion usually denotes that the disabled students' primary placement is in the regular classroom but may receive special services in other supportive situations. For our purposes inclusion will be identified as an integrative process where severely disabled students are included within a sensory oriented activity alongside their non-disabled peers.

Severely disabled students often are the forgotten population or perhaps the least included when the education field takes an innovative step. Also, many parents of these children have been informed by physicians early on that their child will have a meaningless and invaluable life - suggesting that these children will be invalids and should be hidden away. Though there have been many strides in the area of educating the disabled, including the severely disabled, some of this antiquated way of thinking continues to persist. This is especially evident when attending a professional workshop or conference presenting specific topics related to overall disabilities and the content of these conferences rarely relate to severely disabled students. Equity is overdue for every disabled person regardless of the severity of their disability.

My professional career of 16 years is solely comprised of work with the severely disabled. I have worked most of those years directly as a classroom teacher however, my present duties have taken me out of the classroom and into the surrounding communities. It is my responsibility to seek opportunities where our severely disabled students can have exposure to and be instructed in more functional and natural community environments - one environment being the least restrictive environment of the public school. The least restrictive environment cited in the New Jersey administrative code (6:28) refers to educating disabled students alongside non-disabled students to the maximum extent. This is now being translated as inclusion - education's newest endeavor.

Inclusion education refers to the opportunity for all students to be educated within their district, in an age appropriate classroom (within a few years), regardless of their disability. This is to be enforced by providing necessary supports to both the students and the instructors. However, rarely do public school professionals consider the severely disabled for inclusion experiences unless spearheaded by someone such as myself.

The legal basis to encourage inclusion is defined in federal laws such as the Individuals with Disabilities Act (IDEA), Rehabilitation Act of 1973 (Section 504) and The Americans with Disabilities Act (ADA). Each law explains the right of individuals with disabilities to have access to programs, environments and services that are readily available to non-disabled persons. To merely make these accessible to disabled persons is not sufficient. Careful planning, considerations and adaptations are necessary components to make accessibility truly successful. Speaking specifically about public school inclusion, I assert that education, understanding and exposure are key elements to foster a more positive attitude among non-disabled persons toward the disabled.

This research will focus primarily on the attitudes of non-disabled individuals toward disabled persons more so than on specific inclusion perspectives. Chapter Two will reflect what research has found are the general non-disabled attitudes towards persons with disabilities, specific case studies of attitudes measured, and will touch on how to create attitude changes. Chapter Three will describe the measurement scale used and outline the research design developed to determine if in fact inclusion activities can influence attitude changes. Chapter Four will report the results of that study. Finally, Chapter Five will examine the results of my study in respect to the research findings discussed in Chapter Two's literature review.

CHAPTER TWO

RESEARCH REVIEW

Attitude measurement

"Attitude measurement is an attempt to convert observations of a person's behavior toward a referent into an index representing the presence, strength and direction of the attitude presumed to underlie the behavior." (Antonak, 1994).

Several scales have been developed to measure the attitudes of individuals as related to several issues. Some specific measurement tools used to assess attitudes toward individuals with disabilities include; the Attitude Toward Disabled Persons assessment (ATDP), Attitude Toward Handicapped Individuals assessment (ATHI), the Acceptance Scale, the Personal Attribute Inventory for Children (PAIC) and the Peers Attitudes Toward the Handicapped Scale (PATHS).

It is necessary to measure attitudes concerning the disabled among influential individuals such as teachers, employers and physicians. Once their attitudes can be determined and adjusted , if need be these professionals can then assist with the design for strategies to change the attitudes of those they influence, thereby removing obstacles to integration (Antonak & Harth, 1994). Student attitudes should be assessed to determine to what extent their attitudes may need altering and perhaps indicating a specific method in doing so.

Attitudes Toward the Disabled

Attitudes in general are normally formulated within individuals as a result of personal experiences and through contact with others who somehow impact our lives. Darrow and Johnson (1994) refer to other researchers when describing attitudes as general evaluations one makes of objects, people or issues which are often inferred from social and verbal behaviors. Attitudes are compared with other concepts such as opinion, beliefs or value systems, all which are related to behavior (Antonak & Livneh, 1988). Attitudes toward a specific person, issue or object will influence the behavior exhibited when encountering one of these components.

Specific attitudes towards the disabled came to light with the 1939 amendment to the Social Security Act and as a result of maimed soldiers from World War II who became handicapped citizens (McQuilkin, Freitag & Harris, 1990). At this time and for following decades the general research consensus of the attitudes toward disabled persons was one of rejection, prejudice and overall negativity. Rationale for these attitudes are likened to the same reason racial and religious groups experience negative attitudes- all are among the minority and therefore had limited access to certain areas in life. McQuilkin and others (1990) refer to Cheslers' hypotheses which states that when individuals exhibit certain attitudes toward one particular minority, they will also exhibit the same attitudes toward various other groups of a different minority. This is probably why it has been noted that minorities themselves are known to exhibit more tolerance toward the disabled. Other reasons that perpetuate negative attitudes toward the disabled

stem from fear. It seems as though individuals often fear what they do not know, what they have not been exposed to and in what they lack knowledge. Therefore, one might conclude that the lack of exposure to the disabled has equated into fear, ignorance, rejection and negative attitudes.

To change these negative attitudes, recent researchers indicate that one of the most effective means is through a combination of education about disabilities and direct, structured contact with disabled individuals (Rees, Spreen & Harnadek, 1991). It is important that positive attitudes are encouraged if disabled individuals are to have an equal opportunity to actively participate in all facets of society--public school being an important facet for disabled students.

Curriculum areas in the public schools continue to expand its' scope and are now including areas that were once considered parenting skills. One of these added curriculum responsibilities for public schools is the need to develop, encourage and portray positive attitudes towards the disabled population (Fielder & Simpson, 1987). Not providing these curriculum strategies will further promote poor acceptance of the disabled and will continue educational frustration of and for disabled students.

A study was performed by Fielder and Simpson (1987) to determine if a specific curriculum could be developed to educate the nondisabled about the disabled. As a result of this curriculum, could nondisabled attitudes toward the disabled be altered. If this educational process is possible, then which type of

curriculum would promote the best results (categorical or noncategorical curriculum).

Categorical curriculum was defined as informational discussions which were structured into 10 sessions. These sessions included (1) general overview, (2-8) specific disorders (i.e. learning disabilities, physical disabilities), (9) personal acceptance session and (10) a review.

Noncategorical curriculum did not utilize any terms of a labeling nature. Instead language used to identify disabling conditions were functional terms describing specific capabilities of the disabled. It also consisted of 10 sessions; (1) acceptance or rejection values, (2) individual differences, (3) effects of labels, (4) disability versus handicap, (5) handicapping dependencies, (6) self-fulfilling prophecies of dependence, (7) principles of normalization, (8) short term solutions, (9) advocacy and self advocacy and (10) increased integration and acceptance of disabled people and it's beneficial results.

Six social studies classes of 11th graders were chosen subjects. Two classes were the control group receiving no treatment, while two classes were exposed to the categorical curriculum and the other two classes experienced the noncategorical curriculum. Three classes from all groups were pretested, while all six groups were posttested for measurement of their attitudes toward the disabled. The treatment groups attended at least 7 of the 10 sessions over a 10 week period.

The results supported the use of educational curriculum as a viable means to develop positive attitudes toward disabled individuals among nondisabled

students. It was also found that the categorical curriculum proved most advantageous in doing so. (For more information about the study, refer to Fielder & Simpson, 1987).

Therefore, the possibility to structure changes and develop positive attitudes through curricula can and should be done especially in this age of integrative services such as mainstreaming and inclusion.

The other suggestion given was through contact with the disabled.

A study by Condon, York, Heal and Fortschneider (1986) was completed to determine if contact of non-disabled students with their disabled peers could promote significant, favorable attitudes toward the disabled. It was actually a follow-up study to one done previously.

Subjects

Two groups of nondisabled students were used in this study. The first group attended the ECC program with severely disabled students. They had approximately 30 students in four classrooms, ages 3-13 years of age. This ECC program situated their classrooms throughout the Kindergarten through sixth grades in the Prairie Elementary School near chronological aged peers. The ECC program students and the nondisabled elementary school students shared a common lunch and recess and attend assemblies together--joint projects and peer tutoring also took place.

The experimental group (E1) consisted of the second through sixth graders from the Prairie school. Sixty students from this group were treated as a

separate subgroup (E2) as they already had exposure to the ECC students in the Webber School prior to their attendance at Prairie.

The comparison group (CO) consisted of 222 nondisabled students from nearby Thomas Paine which had no classes of severely disabled students. However, there were 8 Paine students who had attended Webber School therefore they became subgroup C2.

Both schools were similar in location, ethnicity and socioeconomic backgrounds however, Prairie did have a greater population density than did Paine.

Materials

The Acceptance Scale was the attitude survey used to measure the attitudes of nondisabled students toward their disabled peers. This sale was initially developed to be used in Hawaii and therefore the first two items were rewritten to fit the study population. Certain descriptive terms were changed simply to "handicapped" and the school's name, the student's sex, grade and previous years school residence were the only identifying information provided on the answer sheet.

Procedure

The scale was administered by a team of two monitors from the University of Illinois to 507 students in the elementary classrooms, each classroom having approximately 25 students. Five teams administered the scale during one morning to each school to avoid possible discussion of the scale with schoolmates.

Results

The maximum points to be scored on the scale was 42. Girls scored a maximum of 20.55, boys only 14.42. The degree of exposure compared the three exposure groups: E2 had a 2 year exposure and exhibited the highest attitude scores, E1 had 1 year exposure and C had no exposure, exhibiting the lowest attitude scores. The average for each group respectively were 16.8, 15.82 and 12.30 for males and 23.58, 22.59 and 18.07 for females. Evidenced that increased contact with disabled peers does positively effect the attitudes of primary school children. Note: due to a single class containing both E1 and E2 students there was an unpredicted dip which took place at the fourth grade level.

In any study, extraneous variables will play a role in the overall outcomes. For example, researchers warn that with contact studies, positive gains may not be maintained over time especially if the contact is not consistent and structured. Factors such as the type of contact, amount, length of time and place, should also be considered (Esposito & Reed, 1986). Nonetheless, one would agree that if contact has proven to be effective, ensuring that all other elements are aptly considered and successfully maneuvered, then exposure to disabled persons should continue to facilitate positive attitudes among nondisabled individuals.

Labeling and Attitudes Towards the Disabled

Labeling disabled students with specific classifications may serve as yet another way to facilitate improved acceptance of disabled students by their nondisabled peers because labeling may make certain displayed behaviors of the

disabled more understood and tolerated (Fiedler & Simpson, 1987). However, labeling has a negative effect which recognizes that nondisabled students and teachers may define disabled individuals specifically in accordance with the characteristics assigned the label given them rather than the personal characteristics of the students themselves. Consequently, the person is masked by the label and the label itself becomes that person in the eyes of many. This is detrimental because often several students who umbrella under one label can and often do exhibit such individualized degrees of behaviors, skills and characteristics.

Labeling can also affect attitudes within teachers which will be the foundation upon which behaviors are established. For example, Stewart (1991) states that physical education teachers exhibited less favorable attitudes toward students labeled physically disabled than they did those students labeled learning disabled. The opposite was true with regular education teachers. Their attitudes were more favorable towards the physically disabled rather than those labeled educable mentally retarded. Obviously both teacher groups reacted to the label itself which drew attention to the students deficits rather than their strengths, indicating an inherent negative connotation (Rothlisberg et al., 1992).

Bak, Cooper, Dobroth and Siperstein (1987) indicate that students also tend to react to labels given disabled students. These researchers noted that nondisabled students saw disabled students who received resource room services as more capable than special class students. These researchers go on to caution

educators involved with integrative programs, to be more sensitive to the effects when using special class labels while addressing regular education classrooms.

Attitudes Toward the Disabled and Inclusion

The passing of the federal legislation Public law 94-142 has accelerated the push towards integrating, mainstreaming and including disabled students in regular education programs alongside their nondisabled peers. This was not an easy process as it has met with opposition. Opposition to the viability of providing such services to the disabled. Such negative attitudes can directly affect the availability and quality of services if not the services themselves (Rees, Spreen and Harnadek, 1991). Providing disabled students with public school services may backfire if those services lack quantity and quality. Therefore attitudes concerning these services should be monitored.

A successful approach to the implementation of public school integration of disabled students is first to provide educators with the necessary supports and education to adequately prepare for these students. Research done by Block, Virginia and Rizzo (1995) concerning the attitudes of regular physical education teachers associated with teaching disabled individuals, stipulated that one of several important findings was that the display of more favorable attitudes by teachers were associated with increased teacher perceived competence. To not provide such support and training to regular education teachers is tantamount to failure. Non-support and limited training will develop negative attitudes in

teachers which will be transferred to and incorporated by the students of those teachers. With these negative attitudes everyone loses especially the disabled students. In fact once teachers have been provided with the necessary tools to help experience positive attitudes toward disabled students they encounter, they are now able to pass on strategies to their nondisabled students to also inherit those same positive attitudes.

Although inclusive activities do increase the social contact between disabled and nondisabled students, it does not guarantee that attitudes of the nondisabled will be positive and accepting. It is vital to examine the influence of instructional programs on both social attitudes and academics (Fox, 1989). Two approaches to this is to teach disabled students prosocial behaviors and to develop positive attitudes of nondisabled students. Though the first approach may be sound, it may not always be an option especially when the disabled students' disabilities are deemed too severe for such a cognitive approach. The second approach then would be a more reasonable consideration. Suggestions offered by Fox (1989) to facilitate these attitude changes can take the form of role playing, reinforcements, sociodrama, intense exposure, education and peer tutoring.

Fortini (1987) looked at research findings that studied the attitudes of nondisabled students toward disabled students after being integrated, using a sociometric measurement tool. Findings indicated that nondisabled students readily rejected their disabled peers over their nondisabled peers. It was noted that researchers who employ non-sociometric measures such as an attitude survey,

nondisabled students who experienced school contact with disabled peers had more positive attitudes. It was found that attitudes surveys, unlike sociometric measures do not ask students to choose between disabled and nondisabled peers. These surveys provide students with the opportunity to express their opinion toward only their disabled peers.

Donaldson, Helmstetter, Donaldson & West (1994) states that the mere physical integration of disabled students with nondisabled students is not enough to encourage acceptance and positive interactions. Therefore, additional development of positive attitudes is to recognize the need for nondisabled students to not only integrate with nondisabled students but also for them to accommodate their disabled peers through the use of such practices as curriculum development and peer tutoring.

Reis (1988) suggests that educators might consider it their responsibility to attempt to foster positive attitude toward the disabled even before inclusive practices are put in place. Discussions of individual differences and a means of appreciating those differences can be emphasized within a social studies or human relations curriculum. Social Studies today should begin to focus not only on cognitive student development, but affective concerns as well, developing citizenship within students who are caring, morally sensitive and prosocial (Donaldson et al, 1994). Such intervention can begin the process of attempting to improve nondisabled attitudes toward the disabled and in turn may intensify the possibilities of successful inclusion interactions.

Trent (1993) provides an example of such a curriculum program developed by the Ward-Highlands Elementary School in Ocaba, Florida. The program was entitled Handicapped Awareness Through Simulation (HATS), which utilized 5 regular education fifth graders and 5 special education classes. The programs four objectives were to; sensitize nondisabled students to specific disabilities of some special education students; to provide interactive opportunities between both groups; to instill empathy and understanding of disabled students among nondisabled students; and to have nondisabled students experience certain disabling conditions through simulation practices.

The program began by showing a puppet video known as *Kids On the Block*, which discusses certain causes of disabilities. Next, an actual puppet show was given by the school's special education department entitled Invisible Handicappeds, informing students about disabling conditions not readily identifiable. The program then went on to have each fifth grade class visit three learning centers. One center was equipped with wheelchairs, leg braces and wrist immobilizers. The second center simulated hearing impairments and learning disabilities and the third center dealt with visual impairments. In each center, nondisabled students had the opportunity to perform routine events while experiencing one of the three areas of limitations. At the end of the entire project, the fifth graders were invited to interact in a special education class on a weekly basis acting as teacher assistants and peer tutors.

As a result all but two students did participate with the weekly interactions. Teacher observations indicated that the attitudes of those participants toward their disabled peers did change and that the ongoing interactions between the two groups became positive.

Further attitude changes due to interactive activities is witnessed through a study done by Giangreco, Dennis, Cloninger, Edelman and Schattman (1993) . This study dealt primarily with teacher attitude changes, though student benefits are mentioned.

Subjects

From the Vermont public school system, 19 general education teachers were selected as the subjects for this study. They were selected on the following criteria:

a) the teacher must have had included in their classrooms a severely disabled student during the last 3 years, b) the students must meet Vermonts' definition of dual sensory impaired, and c) the students were serviced by the Vermont I-Team's Dual Sensory Impairment Project.

Five teachers were men, fourteen were women, with a range of 2 - 21 years of teaching experience. All teachers had paraprofessionals assigned to their rooms, all had various ongoing supports systems available (e.g. related service personnel)

and only two teachers received prior training to prepare them for these included disabled students.

Materials

Data collection consisted of 45 to 90 minute semi-structured interviews which gave teachers a forum to share their experiences and allowed for follow-up questions. Opportunities for data verification were also provided.

Results

Initial reactions of most teachers to the classroom placement of these severely disabled students was with caution or with a negative manner. Terms such as "reluctant", "worried", "unqualified" and "angry" were used by teachers to describe their own feelings. Initial primary care of the student was even given to paraprofessionals. As the year progressed, eventually 17 of the 19 original subjects began to increase their involvement with the student. In this study this increased involvement is referred to as transformation. Though this transformation differed among teachers, those changes translated into increased personal interaction with student and more responsibility for that student's educational needs. Teachers began to identify their experiences more positively, using words such as "successful", "enjoyment" and "interesting." Teachers stopped viewing the student as a disability and more as a human being. Attitudes toward these students began to change as did teacher attitudes changed about themselves. Teachers reported that benefits were derived for themselves, for the disabled student and for their nondisabled students as a result of these inclusive practices. Teachers experienced personal and professional growth. Disabled students experienced improved responsiveness, awareness and a variety of skill acquisitions.

The nondisabled students experienced an increased acceptance and awareness of the needs of the disabled. Overall, this study indicated that ongoing and direct experience working with disabled students is a critical factor to bring about a positive transformation of teacher attitudes.

Researchers have even studied specific information which looks at the impact that integration educational experiences may have on nondisabled students other than merely improving attitudinal opinions of their disabled counterparts. One such research study was completed by Helmstetter, Peck & Giangreco (1994).

In this study the subjects were Washington State students from 45 high schools grades 9 through 12. Two were urban school areas, two were rural and the remaining 5 were in combination areas of both urban and rural. To be eligible to participate three criteria were necessary; a) there must be at least one 14 year or older student attending the school who was classified moderately, severely or profoundly retarded according to state guidelines, b) must have at least 2 students without disabilities who had regular interactions with the disabled student(s), c) those interactions must have occurred for at least 3 months and for a minimum of once a week for 15 minutes or more. A maximum of 6 students meeting these criteria were selected from each area school.

Primary measurement items were gathered from studies done by Peck and others, involving interviews of nondisabled high school students who had extensively interacted with disabled peers-moderate to severe. Also, interviews from parents and teachers of students involved with programs specializing in early

intervention. From these interviews specific benefit categories emerged, they were; a) understanding the beliefs and feelings beneath the behavior of others, b) less fear of human differences, c) tolerance of others, d) development of self concept, e) developing individualized principles, f) friendships, g) responsiveness to the needs of others, h) personal development, i) status among peers and j) better educational experience. The response scale was a five point Likert scale ranging from strongly agree to strongly disagree. Three open ended questions were included to permit students to respond to additional benefits, difficulties and a interaction description.

Results were received from 166 returned surveys. Types of interactions were categorized as tutor, helper, observer, natural relationship, shared a class and a combination of categories. Overview of results compared indicated that the type of contact with the disabled student significantly reflected which benefit areas were derived. For example, students who only shared a class with a disabled student had a higher benefit score listed under tolerance of others than those students whose contact was that of helper or tutor. Tutors and helpers however, had a higher benefit score listed under responsiveness to the needs of others than did those students whose contact was limited to natural relationship. Also students who reported shorter time intervals spent with the disabled were less positively affected. Although most students did indicate some positive growth or benefits, this research compared the types of benefits gathered and the length of contact, to

the types of contact shared. (For additional benefits gained and for specific study information, see Helmstetter, Peck & Giangreco, 1994).

Conclusion

Specific research discussed above has provided studies which link specific curriculum types (categorical) to a means of improving student attitudes towards their disabled peers. In- school contact is yet another format studied which also implies it to be a successful option to improve students attitudes. The type of contact, the quantity, quality, structure and consistency are a few factors to consider as without them, reformed attitudinal occurrences may not be maintained over time. Finally, detailed personal gains have been recorded among both students and teachers resultant of studies compiled concerning the effects of inclusionary education practices.

No research findings can guarantee one hundred percent conclusively due to uncontrolled variables that will in one way or another affect research outcomes. Much of the research presented here concerning attitudes of the nondisabled student toward the disabled student does seem to foster attitudes of acceptance. Couple contact with the disable alongside training and education about the disabled, and the likelihood of successful encounters and improved attitudes is strengthened. Education can take form in specific curriculum development, established curriculum enhancement, as well as providing various program supports. Another means to encourage positive attitudes is for teachers, therapist

and other influential adults to consistently model accepting behaviors for students to identify and emulate.

CHAPTER THREE

RESEARCH DESIGN

Subjects

The subjects for this study were members of two classes where students with severe disabilities were being included. One student with disabilities per class was included in the class activity. Permission to perform this study was received by the School Superintendent, Principal and /or Teacher of the inclusive class.

Group 1 had an enrollment of 52 male and female students who range in grades 9 through 12 and who perform in the high school band. The high school is located in a suburban type school district with a variety of ethnicity, though the greatest percentage of students were Caucasian. Socioeconomic backgrounds appear to range from lower middle class to upper middle class though accurate information of this was not gathered. No class members were excluded, all subjects present in class were asked to participate. Forty two pretest were received and 46 posttest. Both tests were self administered by students after receiving directions on how to complete the survey. Anonymity was also included therefore, discrepancies in pretest and posttest numbers according to enrollment are due to absentees during the days tests were administered.

The disabled student included with Group 1 was a 15 year old, ambulatory, Caucasian male with severe mental retardation. He wears a helmet due to seizure activity and has no meaningful verbal skills. His expressive language is limited to

facial expressions and unrecognizable vocalizations; receptive skills are exhibited by his ability to follow specific verbal directions.

Group 2 consisted of 32 male and female seventh grade students enrolled in an instructional, instrumental music class. These groups were broken into Group A (17 students) and Group B (15 students) as half attended one week and the other half the next, while the disabled student attended weekly. This district and class make up was very similar to the first group in that the school is located in a suburban type school district. Student ethnicity varied though class makeup was predominately Caucasian. Socioeconomic background also appear to range from lower middle class to upper middle class. As in Group 1, all subjects present in class participated with the tests. In Group A 14 pretest were received and 17 posttest. In Group B there were 13 pretest, however a posttest was unable to be administered due to absenteeism of the disabled student as well school closures as a result of inclement weather. Therefore, student contact and exposure to the activity and to each other was limited to only two sessions. Consequently, Group 2B has been eliminated from the study.

The disabled student included with the nondisabled students of Group 2A, now to be referred to as Group 2, was a 13 year old, African-American, non-ambulatory, blind male with severe mental retardation. He is transported in a travel wheelchair and requires total assistance from caregivers for all of his needs. He too has no verbal skills. His expressive skills are limited to facial expressions

and vocalizations; receptive skills are witnessed by him smiling when he is addressed.

Procedure

In Group 1, the High School band, the disabled student was included with the band during biweekly visits. The class took place in the school auditorium where the disabled student merely sat on stage in a section of the band and listened while the band practiced. Social interactions were attempted before and after band practice by the escort of the disabled student. Social interactions consisted of the disabled students' escort attempting to draw the attention of nondisabled students to the disabled student by asking them their names and in turn introducing the disabled student to the nondisabled student being addressed. The escort also asked nondisabled students questions about themselves then following their response with something similar about the disabled student, hoping to solicit additional questions and interactions from the nondisabled student. Noudisabled were not quick to interact, perhaps due to the need to settle into the class activity.

On the first day of the activity, I introduced myself to the students and explained to them that though I am a teacher, I am also a student working on an assignment and was in need of and would greatly appreciate their assistance. I told them that, "I have a questionnaire for you to complete that is simply asking you for your opinions. If you answer honestly you can not get it wrong." I then explained how to complete the form using the key at the top of the questionnaire,

then distributed the survey. The students completed the survey at that time under supervision.

Seventeen weeks later (being on a biweekly schedule) a posttest of the same questionnaire was given. This time I repeated my pretest statement about needing their assistance once again to complete one more survey. I also repeated the directions and made the statement, "Remember ladies and gentlemen, correct answers are honest answers." Again the survey was supervised.

Group 2 was involved in a music class where they were learning to play some basic cords on specific instruments (guitar, piano, drums). The class took place in a classroom containing levels or steps. Each level held a row of seated students. The disabled student sat on the upper level because of his wheelchair; though he did have access to the entire room during independent activities. He too sat and listened while the students played. However, the teacher provided a musical instrument for the disabled student to "play," with hand over hand assistance from his escort. Also the teacher provided the students with free time to play the instruments independently. At these independent times the teacher encouraged the nondisabled students to interact and include the disabled student in their independent activities. For example, if a group of students were involved with a music activity on the computer, the teacher encouraged them to show the disabled student the different features of the program being used. Also when a group of students went into the sound proof music room to perform as "a band", the teacher included the disabled student as a band member. Administration of the

survey was handled in the same manner as it was for Group 1. The posttest was administered after nine weeks as a new group began the next nine week semester session.

Measurement scale

The Attitude Toward Disabled Persons Assessment - Form-O was used on the research subjects. It was originally developed by Yuker et al in 1960. It is comprised of 20 items used to measure attitudes toward the disabled population. The items on the scale are various statements of differences or similarities between the nondisabled and the disabled. The response format uses a 6 point Likert scale ranging from, "I agree very much", to "I disagree very much." The scale can be administered to an individual or a group. The directions of how to complete the scale were written at the top of the page, which is simply to assign a corresponding number of the Likert scale next to each numbered statement. "A subsequent series of monographs presents detailed item, scale reliability and validity information for the scales, as well as summaries of a large number of studies which have used the ATDP" (Antonak & Livneh, 1988).

This researcher selected this assessment scale due to research which indicated that it is a most widely used instrument to assess attitudes of individuals toward the disabled (Salend, 1994). Salend also indicates that with this instrument, items can be converted to a true-false format, language can be simplified and items that do not pertain to accurate information can be deleted.

Adjustments made to the ATDP scale for this study included, deleting the first item from the scale as it talked about parents of the disabled rather than the disabled themselves; reducing the number of possible Likert responses from 6 to 3 which were, "I agree very much", "I agree alittle" and "I disagree." This was done to expedite the completion of the scale and to avoid confusion over choices. The final adjustment to the scale was to simplify some of the language to account for individual reading and comprehension levels. (Copy of the assessment scale can be found in the appendix).

CHAPTER FOUR

DATA ANALYSIS

To measure the attitudes of grade school students toward disabled persons before and after inclusive intervention, a pretest and posttest of Yuker's Attitude Toward Disabled Person Scale was utilized to gather data. The scale contained 5 positive and 14 negative items referring to disabled children. Using a 3 point Likert response scale the subjects were asked to select a numbered answer for each item. They selected from the following choices, 3 to indicate "I agree very much," 2 to indicate "I agree alittle," and 1 to indicate "I disagree." A zero was used for scoring when no response was indicated. With this scale, complete agreement (indicated by choosing #3) the 5 positive stated items and disagreement (indicated by choosing #1) to the 14 negative items would exhibit an overall positive attitude toward the disabled from the subjects. For example, if the statement was made that "disabled students are often grouchy," the most correct response would be number 1, indicating disagreement, as all students in general are sometimes grouchy and sometimes not. Just as the statement, "disabled children are the same as anyone else" should receive response number 3, indicating agreement. Of the 19 items, numbers 1,4,5,10, & 11 were the positive items, and numbers 2, 3, 6, 9, 10, 12 - 19 were the negative items.

A pretest of the ATDP Scale was administered to each group before intervention and a posttest of the same scale was given after intervention. The intervention consisted of having a severely disabled student included among each

groups' class activity one day a week. Group One's class activity was that of a high school band. Members of this class were male and female nondisabled 9th through 12th grade students. The intervention took place for 7 weeks. Group Two consisted of nondisabled male and female students in a 7th grade instrumental music class. Their inclusive intervention lasted for 5 weeks. Names were not recorded to make sure the students remained anonymous, thereby encouraging students to be more candid with their responses. As a result, there were 42 pretest and 46 posttest completed for Group One and 14 pretest and 17 posttest for Group Two. The reason for these pretest and posttest discrepancy is due to not knowing which students were absent during the pretest, the posttests were given to all students present on the day the posttest was given despite initial application of the pretest.

The measurement scale was scored according to frequency distribution and mean score derivatives of each item response. Table 1A presents pretest and posttest frequencies and mean scores for Group One; Table 1B represents Group Two scores. Ideal frequency responses for each item are in bold print to readily identify changes in pre and posttest results.

Interpretation of frequency scores must be evaluated per item due to the positive or negative nature of each item. For example, item number one states that "Physically disabled children are just as smart as nondisabled ones," this should solicit a positive response of number 3, "I agree very much." Therefore, positive attitude changes are measured by the frequency increases of number 3 responses to

these positive items. While item two, "Disabled children are usually easier to get along with than other children" should receive the number 1 response of "I disagree", increasing the number 1 responses to negative nature items.

Mean score interpretation is also represented according to the positive or negative nature of each item. Posttest mean scores of positive items should increase while mean scores of negative items should decrease if positive attitude changes did occur.

Frequency distribution scores are also represented visually on bar charts in tables 2A(1-19) through 2B(1-19), while mean scores are duplicated on line charts in table 3 A & B. Each chart represents the pretest and posttest results on each separate item number of both groups. Some bar graphs clearly mirror significant changes as in table 2A(1) while other graphs must be carefully scrutinized when little or no changes were made; example table 2B(12). Mean score line charts (tables 3A & B) have delineated positive and negative items to clearly identify changes as solid line posttest results should go up with positive items and down with negative items to indicate positive attitude changes.

Positive Items: Frequency Distribution

As noted earlier items 1, 4, 5, 10, & 11 were the items phrased in a positive manner. The charts of table 1A and 1B indicate that these numbers show an increase of number 3 responses of the Likert scale. Any such increases of these responses reflects a positive attitude change among subjects. For example, in table

1A, item number one on the pretest frequency distributions had 20 responses for "I agree very much" that "Physically disabled children are just as smart as nondisabled ones." The posttest figures for this item rose to 32 responses, an obvious change in attitudes among those students. Item 7 states, "It is up to the government to take care of disabled children." Table 1A reflects no change of attitude on item 7 as pretests and posttest scores remained at 25. Table 1A reveals a negative attitude change on item 5; "There should not be special schools for disabled children." Here, the pretest score was 4 while the posttest score decreased to zero.

TABLE 1 A

GROUP ONE

Frequency distribution and mean score results on pretest and posttest of the Attitude Towards Disabled Persons Scale.	PRETEST (42) 0	1	2	3	Mean	POSTTEST (46) 0	1	2	3	Mean
(P) 1. Physically disabled children are just as smart as nondisabled ones.	0	1	21	20	2.45	0	1	13	32	2.67
(N) 2. Disabled children are usually easier to get along with than other children.	3	8	21	10	1.90	0	15	26	5	1.78
(N) 3. Most disabled children feel sorry for themselves.	1	27	11	3	1.38	1	30	15	0	1.30
(P) 4. Disabled children are the same as anyone else.	0	3	16	23	2.47	0	6	16	24	2.39
(P) 5. There should not be special schools for disabled children.	0	27	11	4	1.45	0	35	11	0	1.23
(N) 6. It would be best for disabled children to live and work in special neighborhoods.	0	31	11	0	1.26	1	34	9	2	1.26
(N) 7. It is up to the government to take care of disabled children.	0	25	14	3	1.47	0	25	17	4	1.54
(N) 8. Most disabled people worry a great deal.	2	24	15	1	1.35	1	27	16	2	1.41
(N) 9. Disabled children should not have to work as hard as nondisabled children.	1	28	10	3	1.35	1	28	17	0	1.34
(P) 10. Disabled children are as happy as nondisabled children.	1	7	17	17	2.19	0	5	21	20	2.32

TABLE 1 A

GROUP ONE

Frequency distribution and mean score results on pretest and posttest of the Attitude Towards Disabled Persons Scale.	PRETEST (42) 0	1	2	3	Mean	POSTTEST (46) 0	1	2	3	Mean
(P) 11. Disabled children with many disabilities are no harder to get along with than those with fewer disabilities.	0	8	17	17	2.21	1	8	19	18	2.17
(N) 12. It is almost not possible for disabled children to have a normal life.	1	24	14	3	1.45	0	22	22	2	1.56
(N) 13. You should not expect too much from disabled children.	1	23	16	2	1.45	0	29	15	2	1.41
(N) 14. Disabled children almost always keep to themselves much of the time.	3	23	12	4	1.40	1	26	17	2	1.43
(N) 15. Disabled children are more easily upset than nondisabled children.	3	12	21	6	1.71	1	16	26	3	1.67
(N) 16. Disabled children can not have a normal social life, like going to the movies, parties, or having friends.	2	26	8	6	1.42	0	36	8	2	1.26
(N) 17. Most disabled children feel that they are not as good as other children.	5	21	16	0	1.26	1	20	25	0	1.52
(N) 18. You have to be careful what you say when you are with disabled children.	3	12	22	5	1.69	0	20	20	6	1.69
(N) 19. Disabled children are often grouchy.	5	25	12	0	1.16	0	35	10	1	1.26

Positive Items: Mean Scores

Mean score interpretation is also represented according to the positive and negative nature of each item. Posttest mean scores for positive items 1, 4, 5, 10, & 11 should increase to indicate positive attitude changes. This can be seen by examining those positive item mean scores for Group Two represented on table 1B. For example, item 10 states that "disabled children are just as happy as nondisabled ones." The pretest score for Group Two on this item was 2.50 while the posttest score increased to 2.64. This increase represents a positive change in student attitude. A negative change in student attitude is seen on table 1B item 11. Here the statement is made, "disabled children with many disabilities are no harder to get along with than those with fewer disabilities." Pretest mean score results for Group Two were 2.40 while posttest scores declined to 2.29. This decrease represents a positive change in student attitude.

TABLE 1 B

GROUP TWO

Frequency distribution and mean score results on pretest and posttest of the Attitude Towards Disabled Persons Scale.	PRETEST (14) 0	1	2	3	Mean	POSTTEST (17) 0	1	2	3	Mean
(P) 1. Physically disabled children are just as smart as nondisabled ones.	0	1	10	3	2.10	0	1	5	11	2.58
(N) 2. Disabled children are usually easier to get along with than other children.	0	5	5	4	1.90	0	4	11	2	1.88
(N) 3. Most disabled children feel sorry for themselves.	0	7	3	4	1.78	0	12	3	2	1.41
(P) 4. Disabled children are the same as anyone else.	0	0	4	10	2.70	0	1	6	10	2.52
(P) 5. There should not be special schools for disabled children.	0	3	8	3	2.00	0	4	9	4	2.00
(N) 6. It would be best for disabled children to live and work in special neighborhoods.	0	11	2	1	1.28	0	13	3	1	1.29
(N) 7. It is up to the government to take care of disabled children.	0	13	1	0	1.07	0	12	4	1	1.82
(N) 8. Most disabled people worry a great deal.	0	6	7	1	1.60	0	9	5	3	1.64
(N) 9. Disabled children should not have to work as hard as nondisabled children.	0	3	6	5	2.10	0	7	8	2	1.70
(P) 10. Disabled children are as happy as nondisabled children.	0	2	3	9	2.50	0	0	6	11	2.64

TABLE 1 B

GROUP TWO

Frequency distribution and mean score results on pretest and posttest of the Attitude Towards Disabled Persons Scale.	PRETEST (14) 0	1	2	3	Mean	POSTTEST (17) 0	1	2	3	Mean
(P) 11. Disabled children with many disabilities are no harder to get along with than those with fewer disabilities.	0	3	2	9	2.40	0	4	4	9	2.29
(N) 12. It is almost not possible for disabled children to have a normal life.	0	7	5	2	1.60	0	10	6	1	1.47
(N) 13. You should not expect too much from disabled children.	0	4	6	4	2.00	0	7	7	3	1.76
(N) 14. Disabled children almost always keep to themselves much of the time.	1	3	8	2	1.78	0	10	5	2	1.52
(N) 15. Disabled children are more easily upset than nondisabled children.	0	0	11	3	2.20	0	10	5	2	1.52
(N) 16. Disabled children can not have a normal social life, like going to the movies, parties, or having friends.	0	10	2	2	1.40	0	14	2	1	1.23
(N) 17. Most disabled children feel that they are not as good as other children.	1	5	5	3	1.70	0	9	8	0	1.47
(N) 18. You have to be careful what you say when you are with disabled children.	0	1	10	3	2.10	0	7	7	3	1.76
(N) 19. Disabled children are often grouchy.	1	7	5	1	1.40	0	15	1	1	1.17

Negative Items: Frequency Distribution

Looking at the negative items on the measurement scale (items 2, 3, 6, 7, 8, 9, 12-19) the frequency distribution scores must increase on all number one responses of the Likert scale. The number one response indicate, "I disagree" to all negative stated items. Any such increase in this response also reflects a positive attitude change among subjects. For example, in table 1B, item number 3, the pretest frequency distribution score had 7 responses for "I disagree" that "most disabled children feel sorry for themselves." The posttest scores for items number 11 increased to 12 responses, indicating change in attitudes. Further study of both tables 1A and 1B as well as bar graph 2A (1-19) and 2B (1-19) will indicate which items reflect score increases, decreases, or maintenance.

Negative Items: Mean Scores

Mean score interpretation of negative items 2,3,6,7,8,9, 12-19 must be looked at opposite than positive items. In order for negative items to reflect a positive change, posttest mean scores should decrease indicating that fewer students made positive responses to negative stated items. An example is clear in table 1B, item number nine. Here the pretest score was 2.10 indicating that more students felt that "disabled children should not have to work as hard as nondisabled children." However on the posttest, only 1.70 children still maintained this belief; a substantial positive attitude change is reflected here. Item number 8 of table 1B shows just the opposite. Whereas the pretest score for "most disabled

children worry a great deal" was 1.60, instead of decreasing, the posttest rose to 1.64 indicating that even more students felt this way than they did initially.

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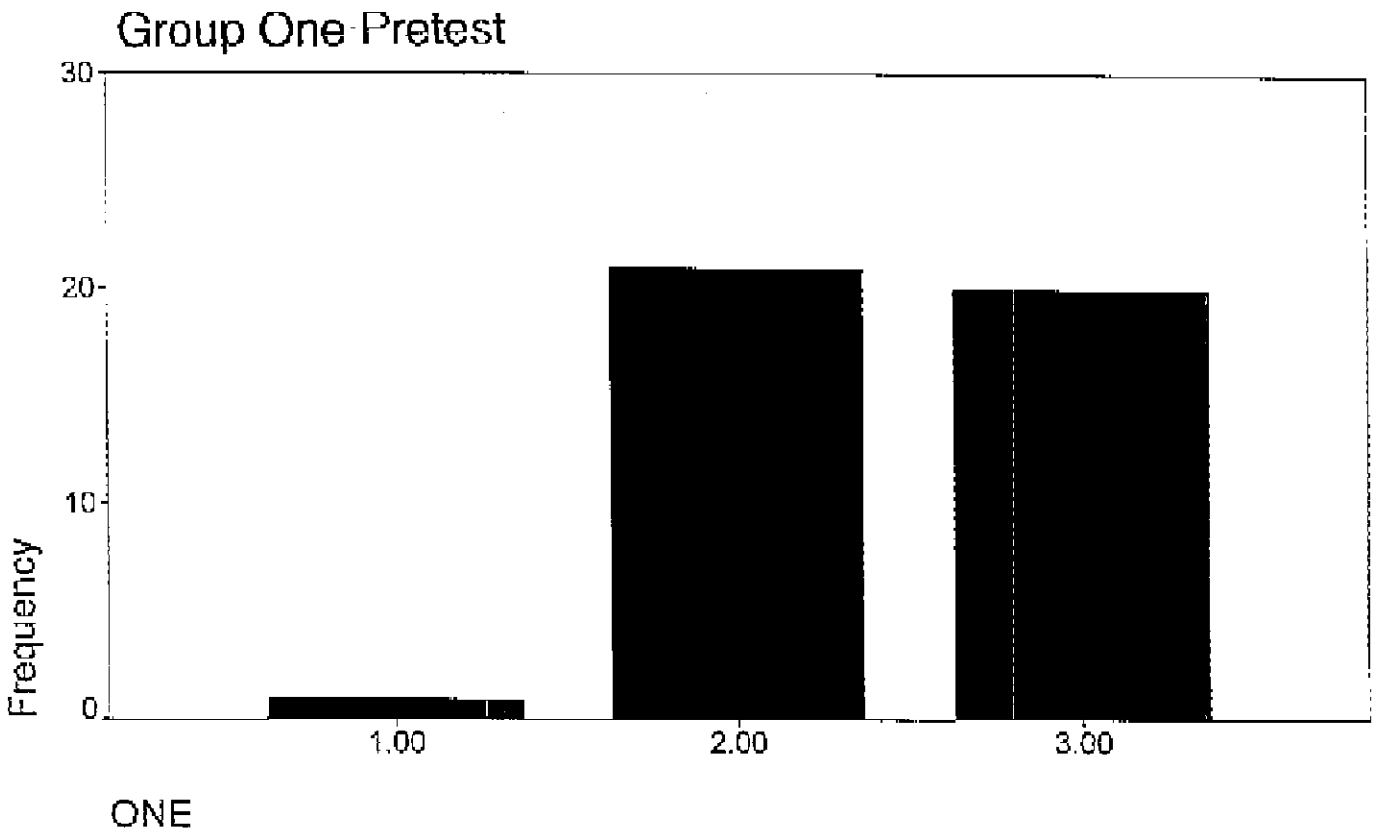
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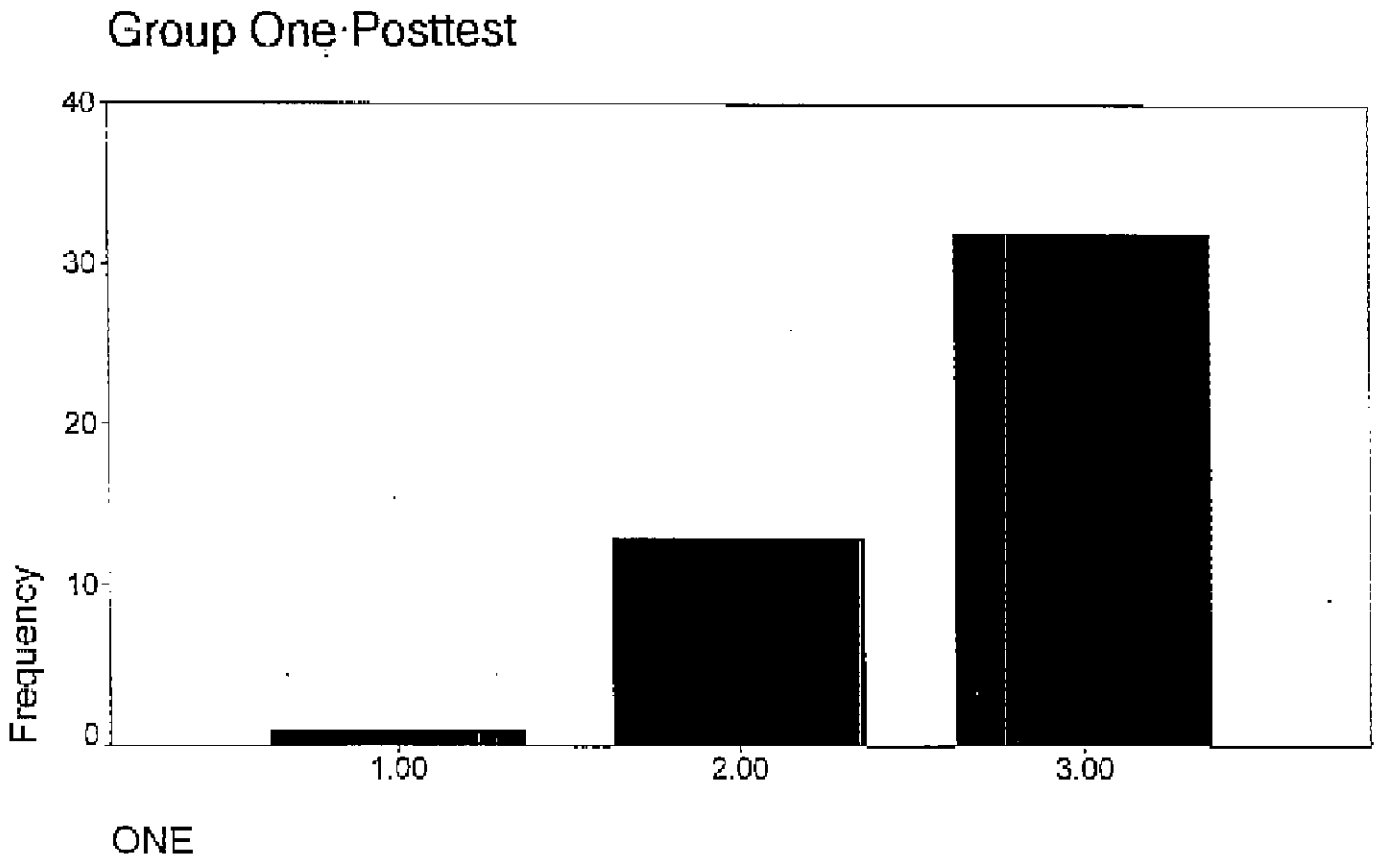
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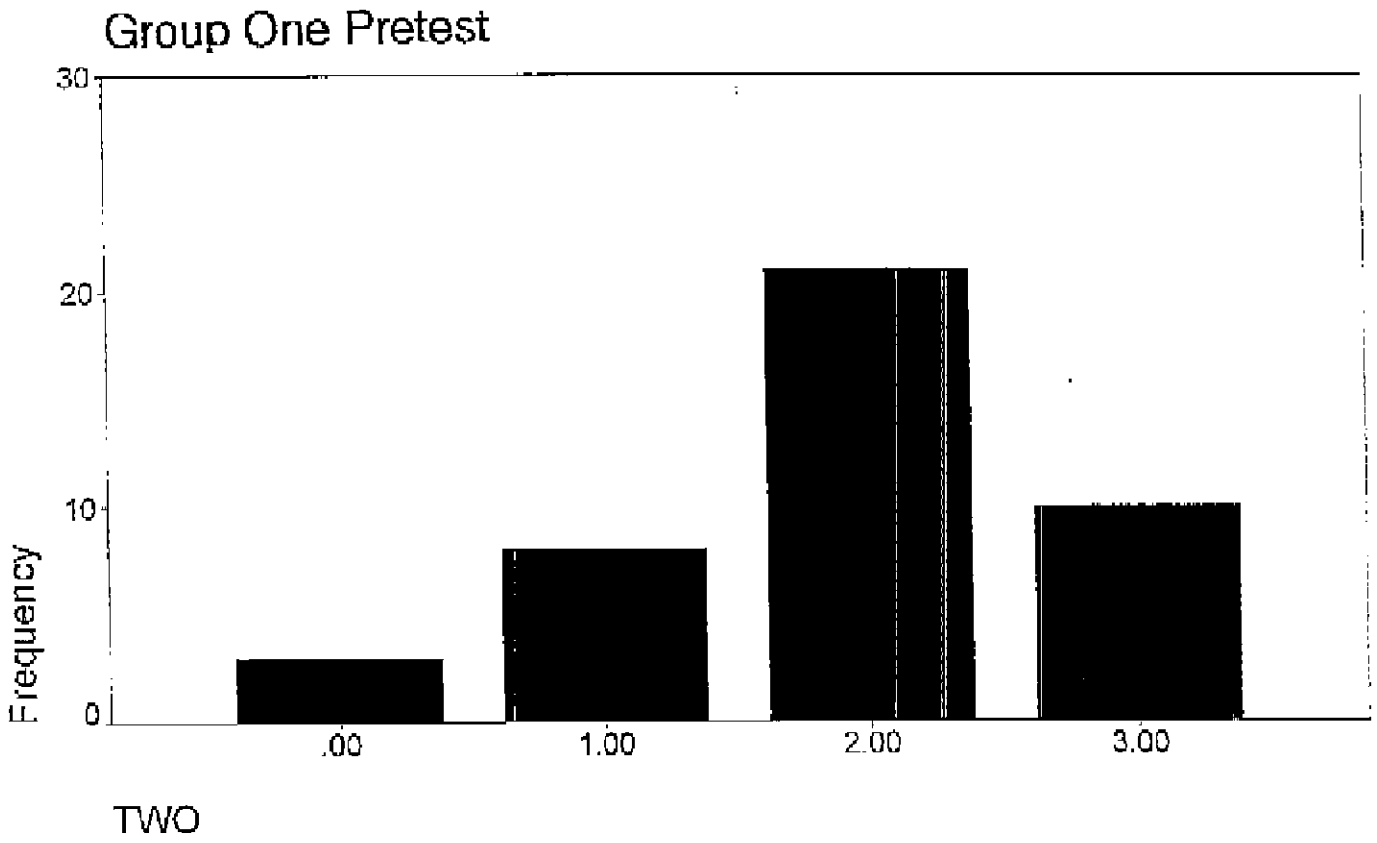
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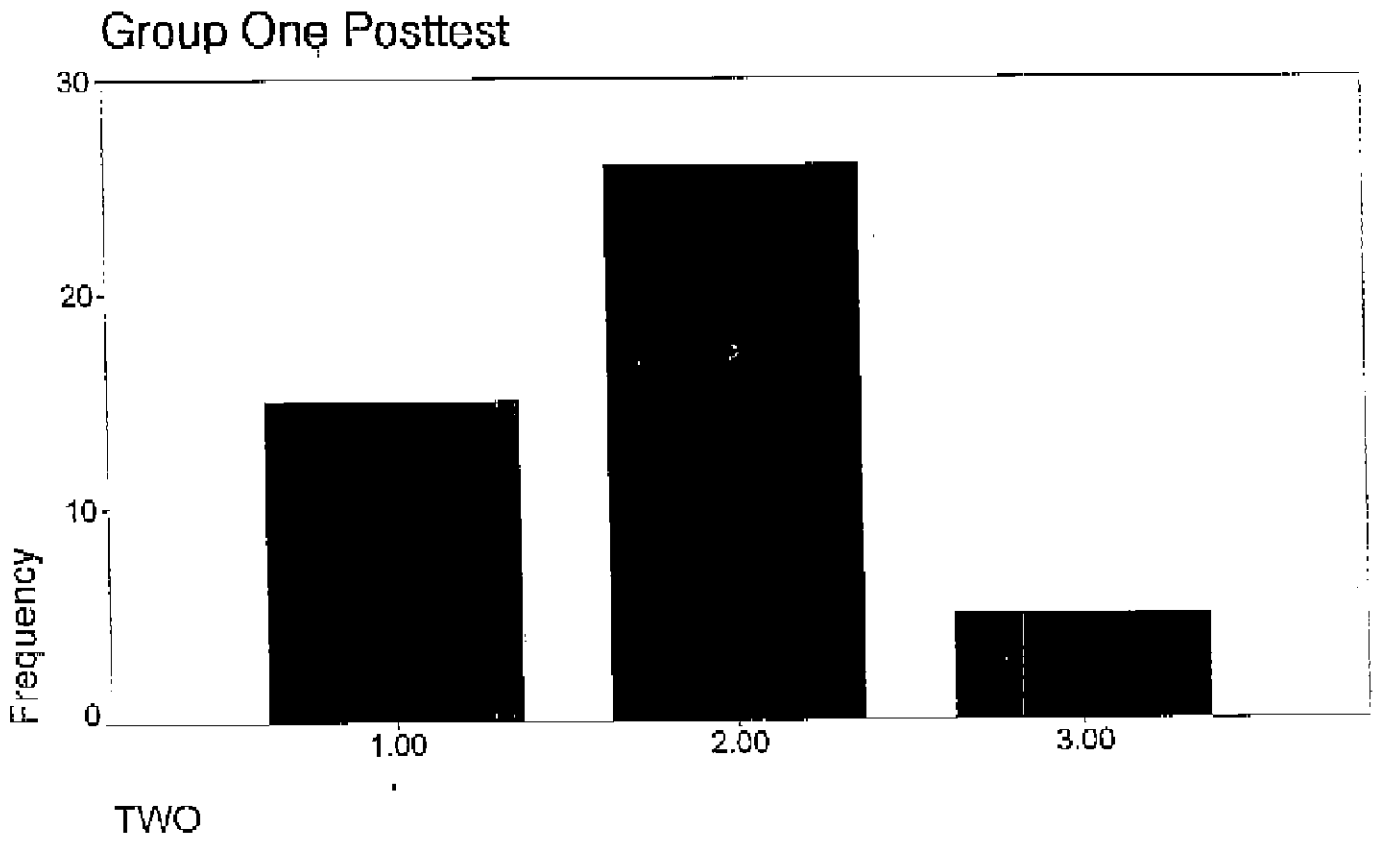
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Frequency
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3.00
TWO

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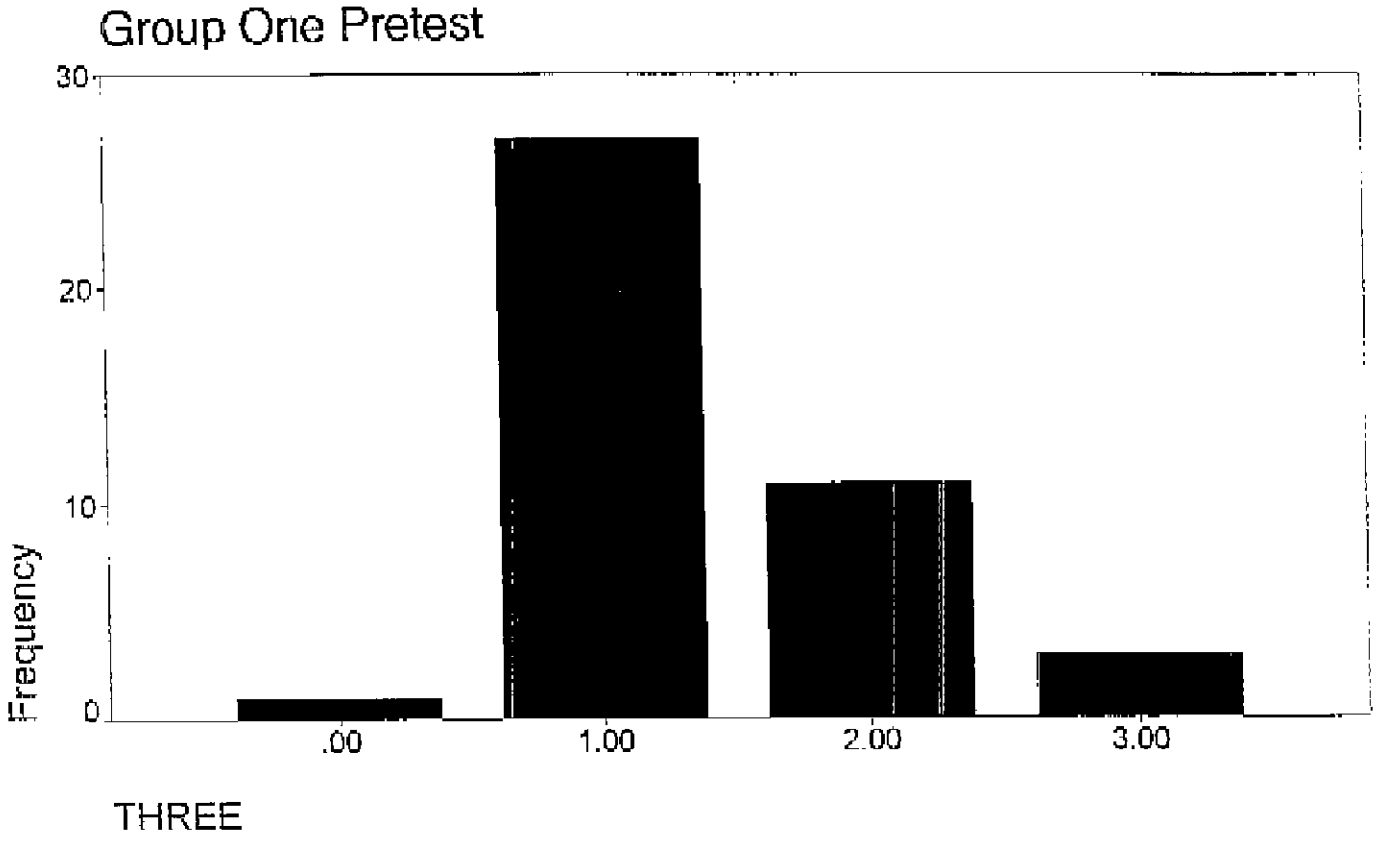
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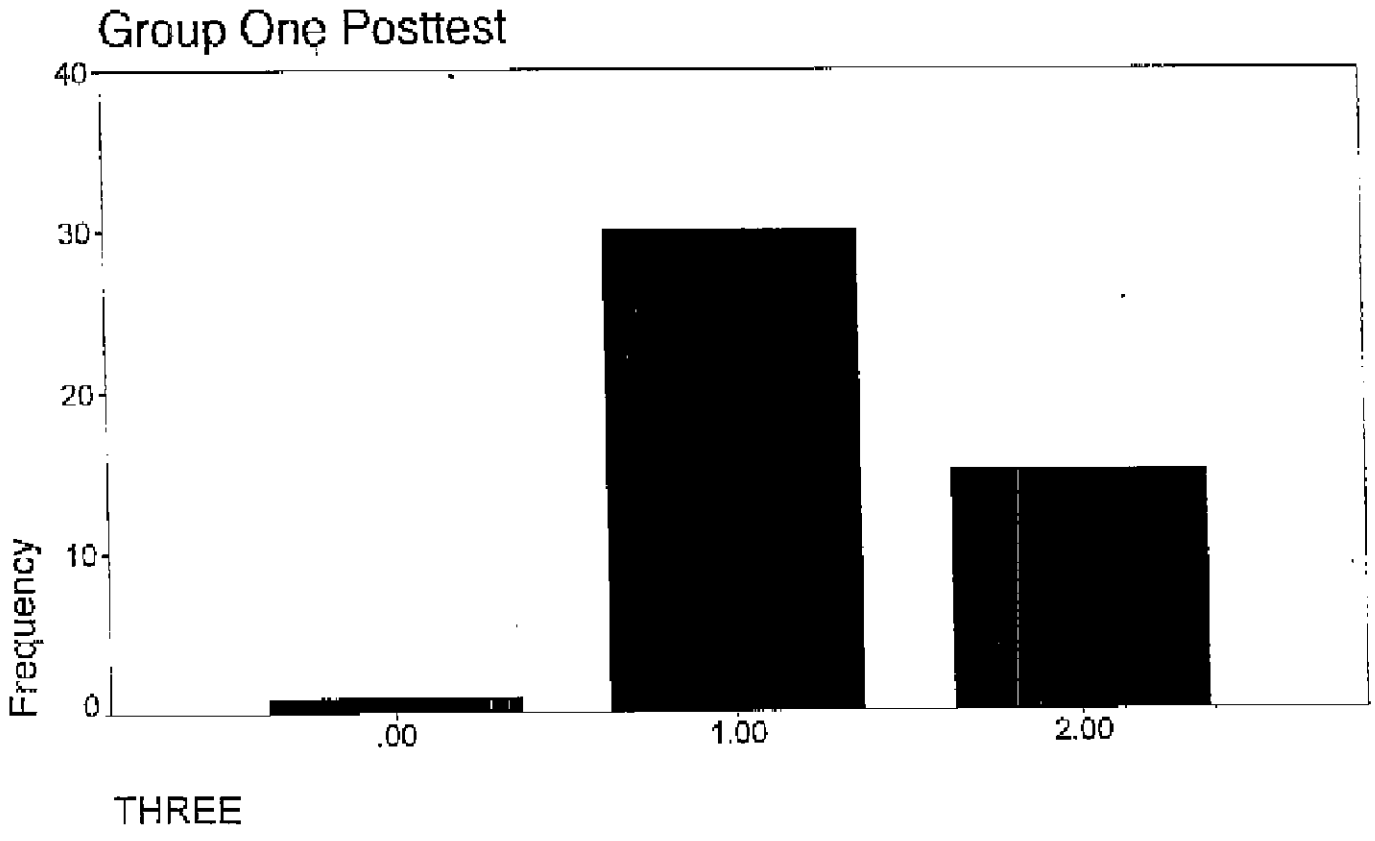
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2.00
THREE

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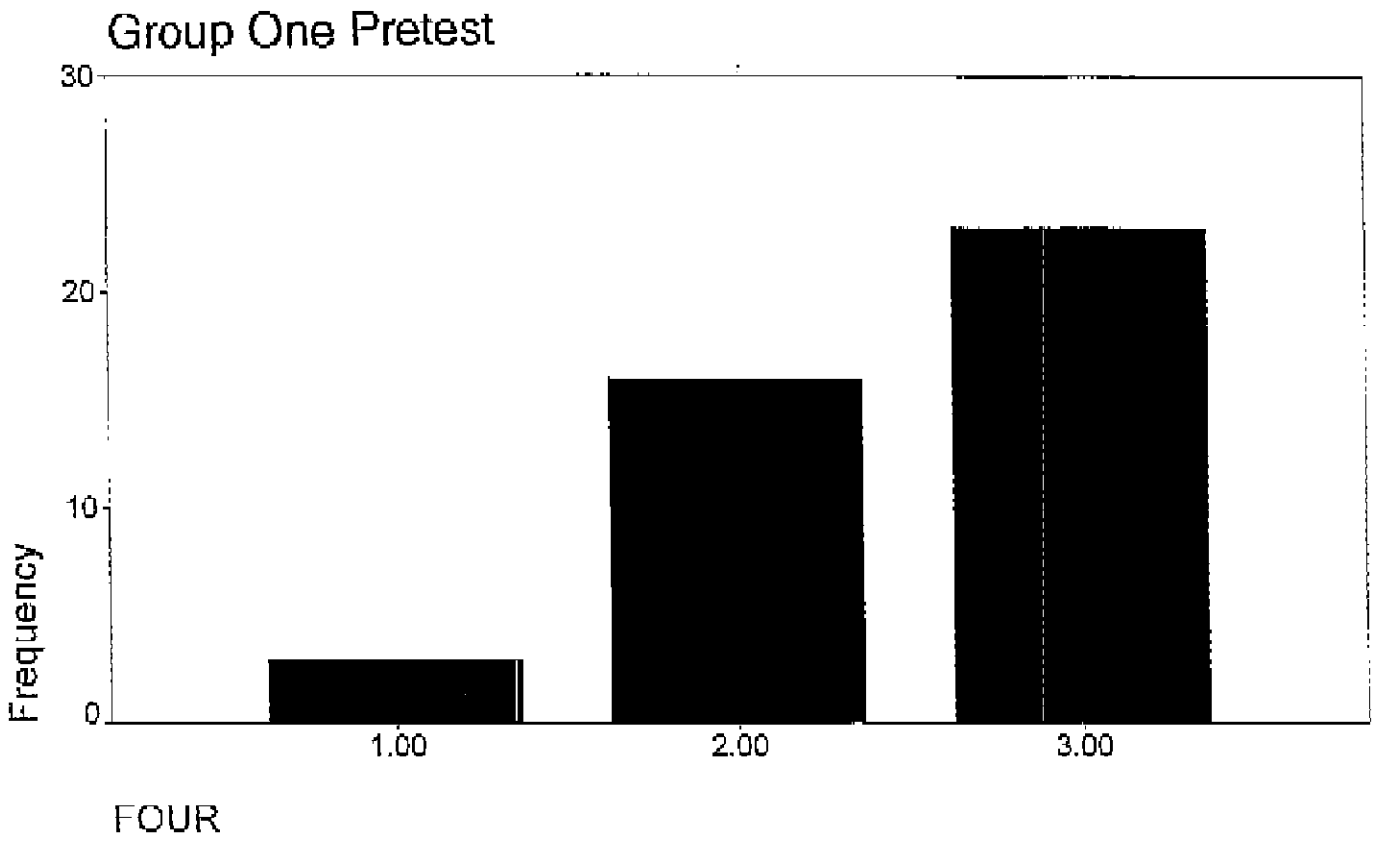
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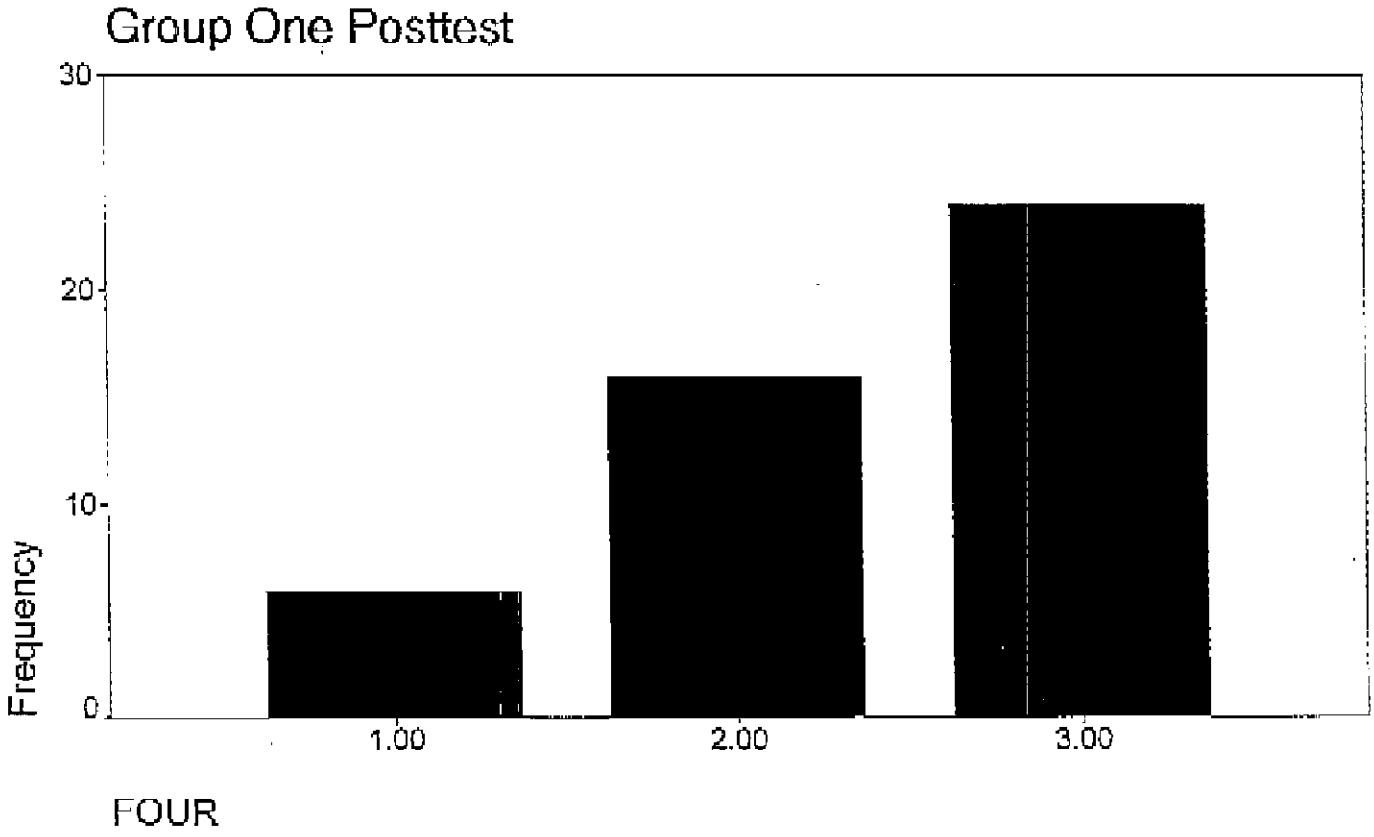
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3.00
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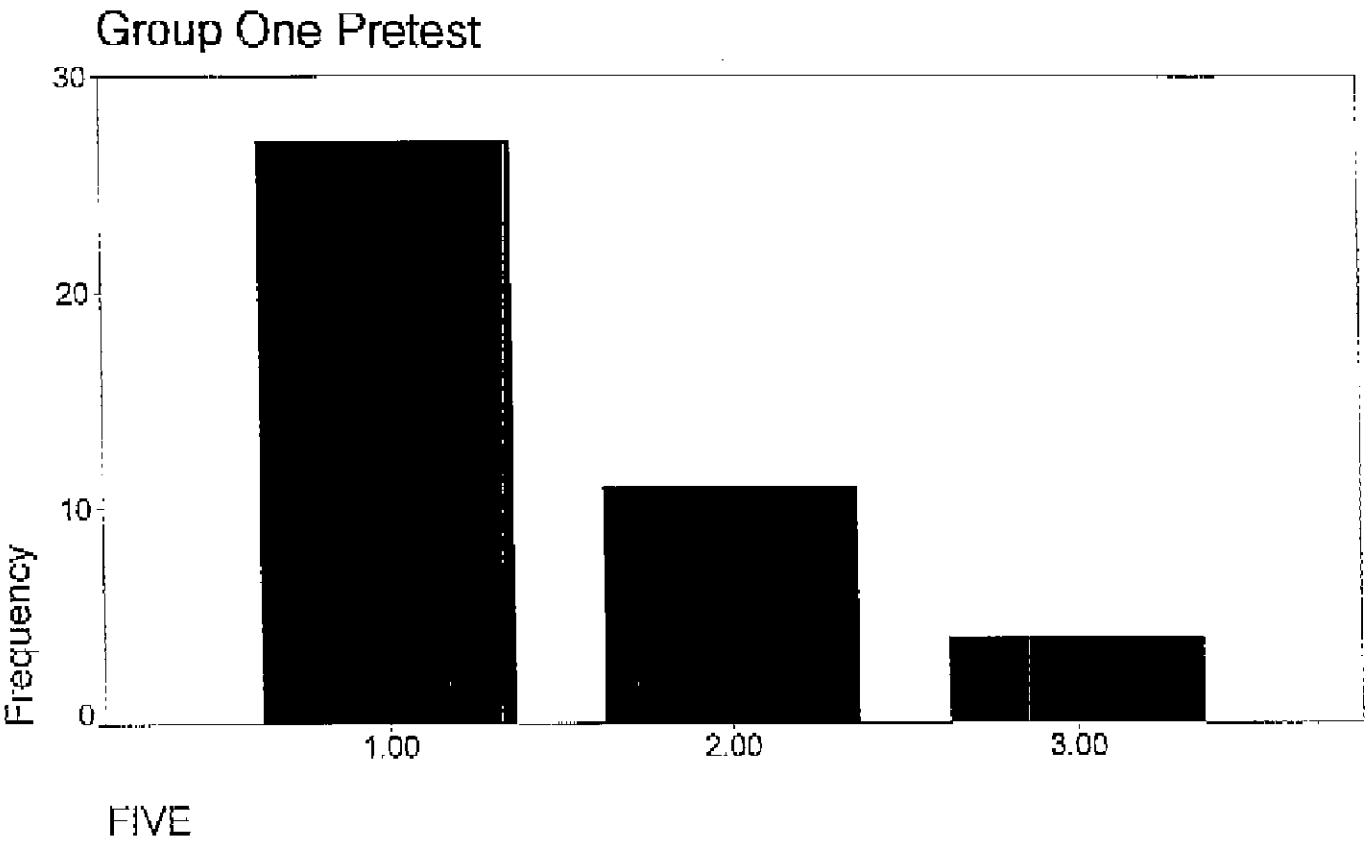
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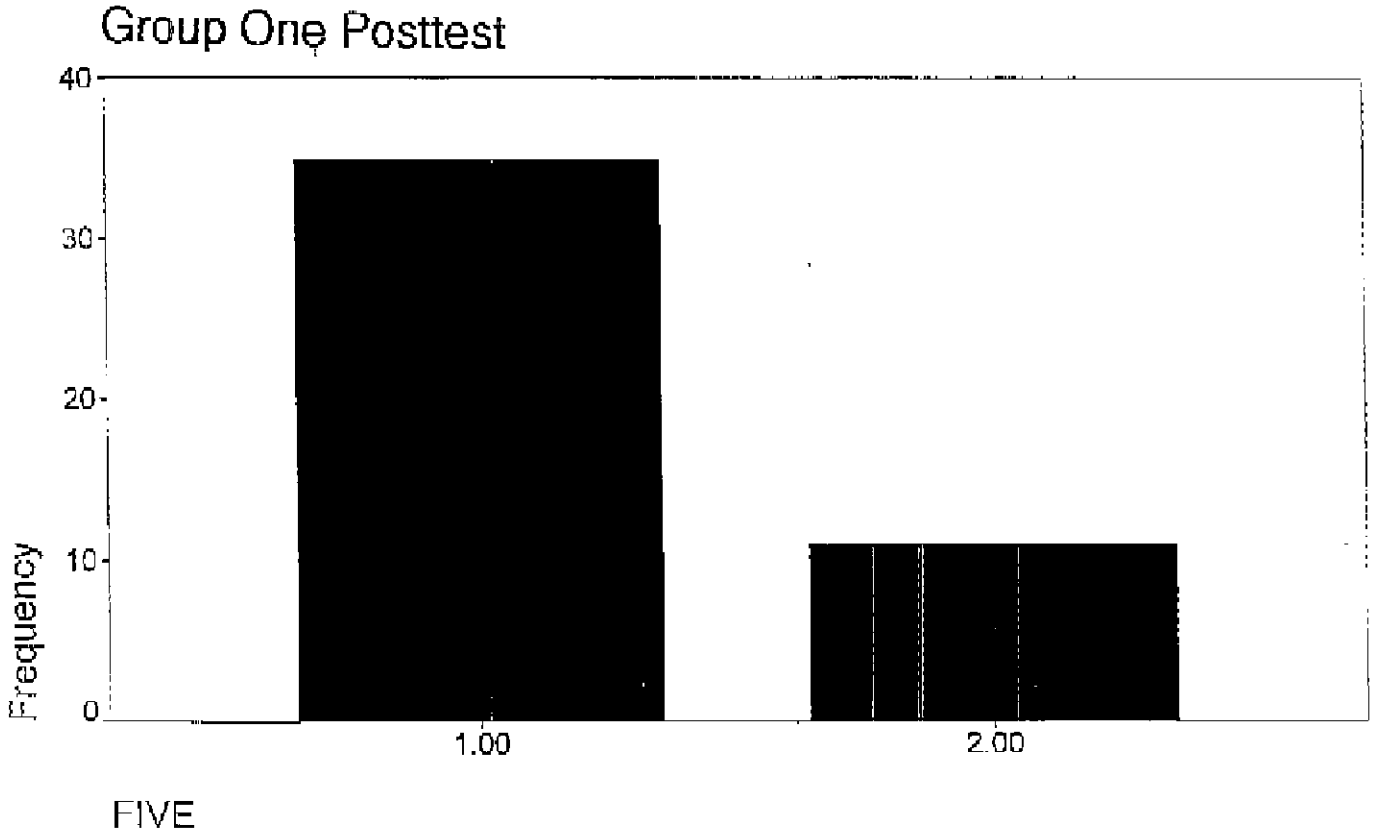
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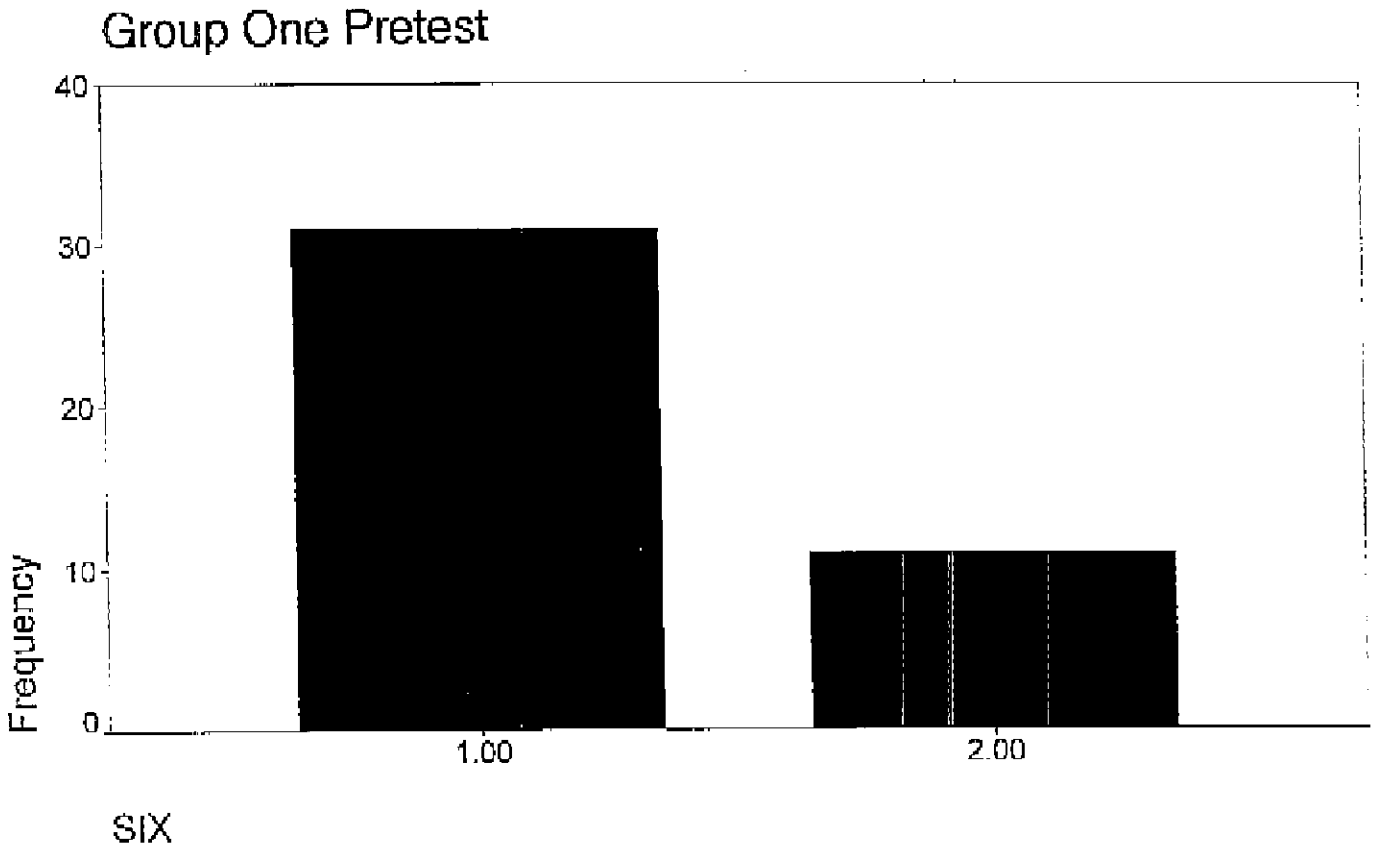
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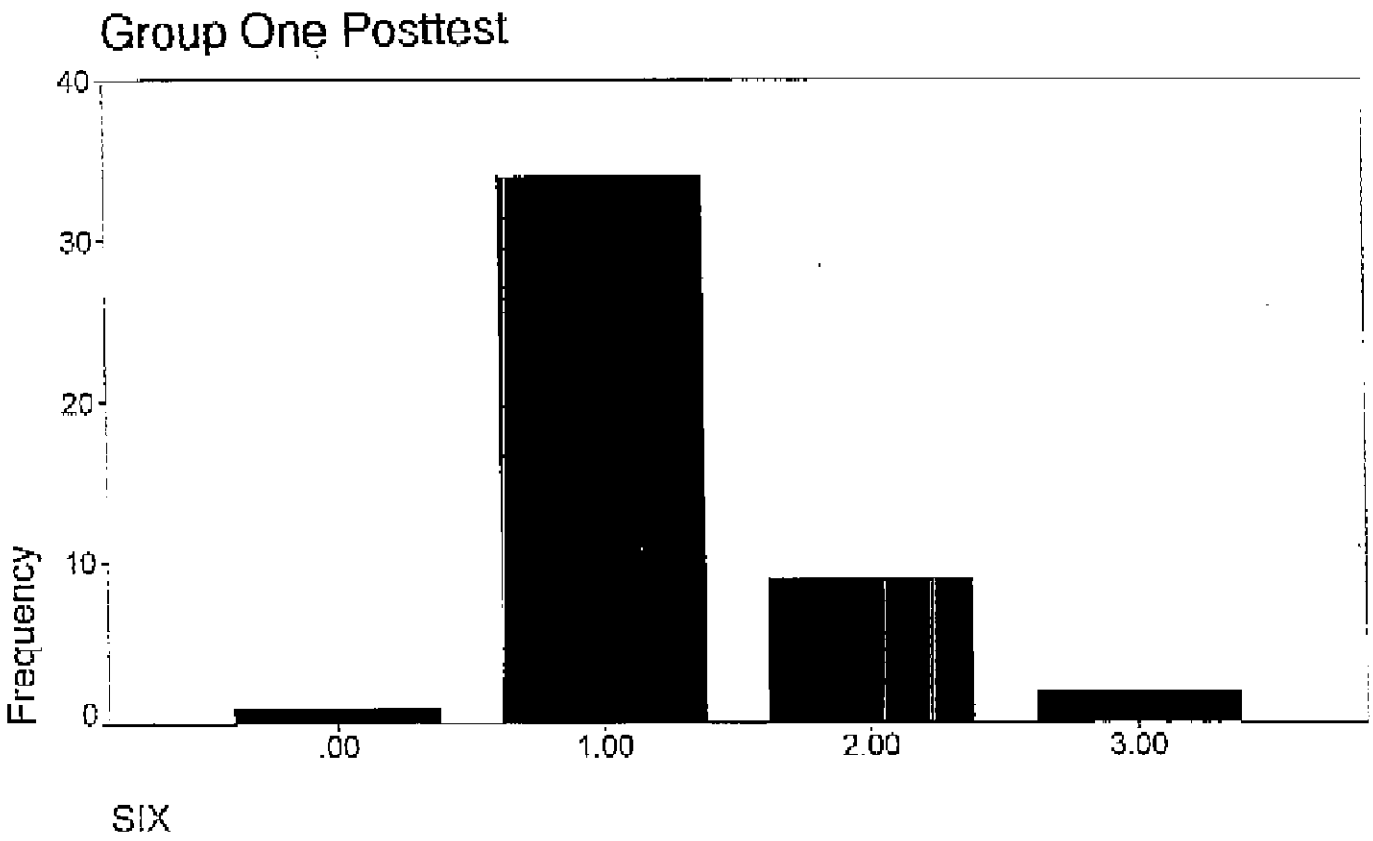
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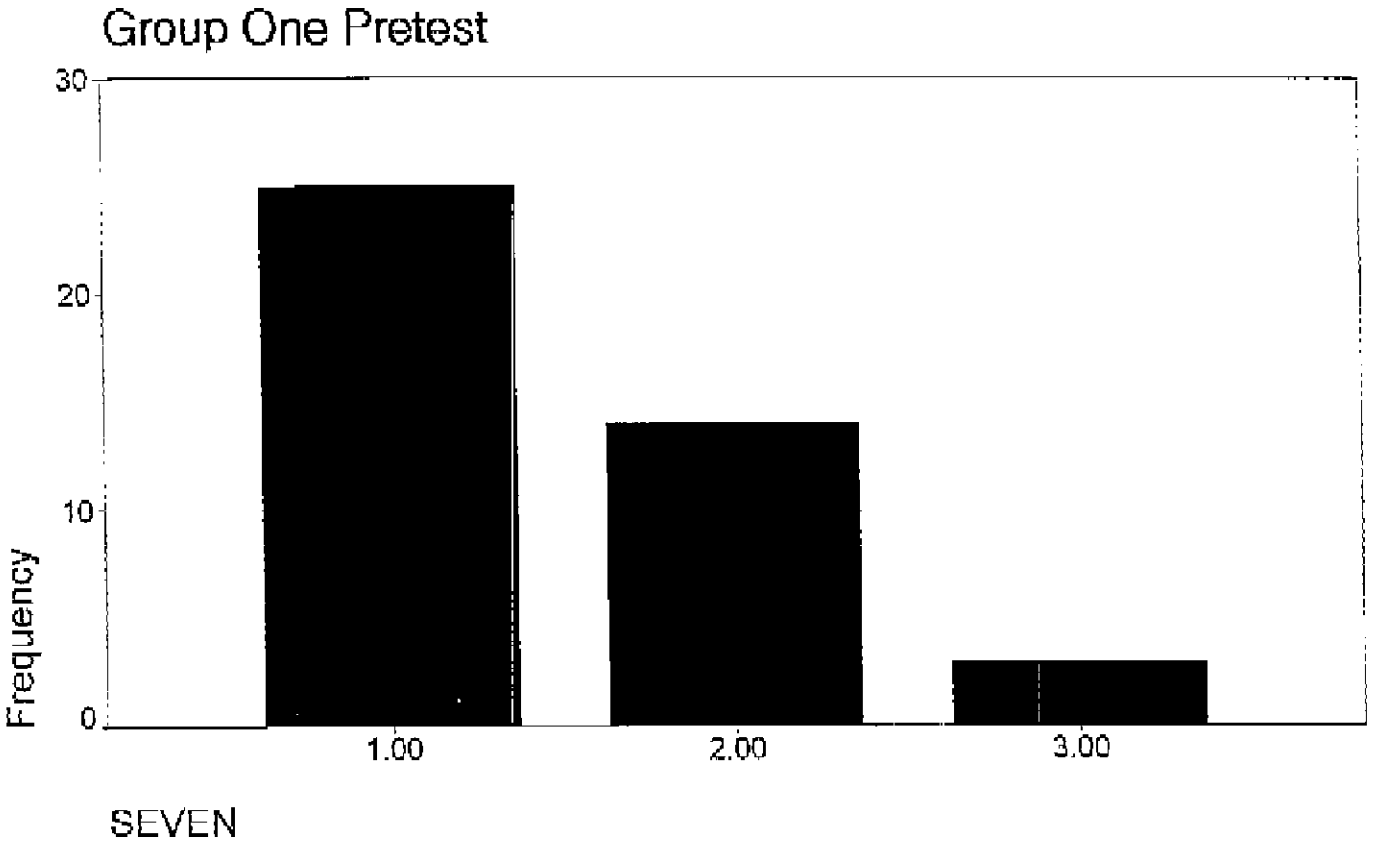
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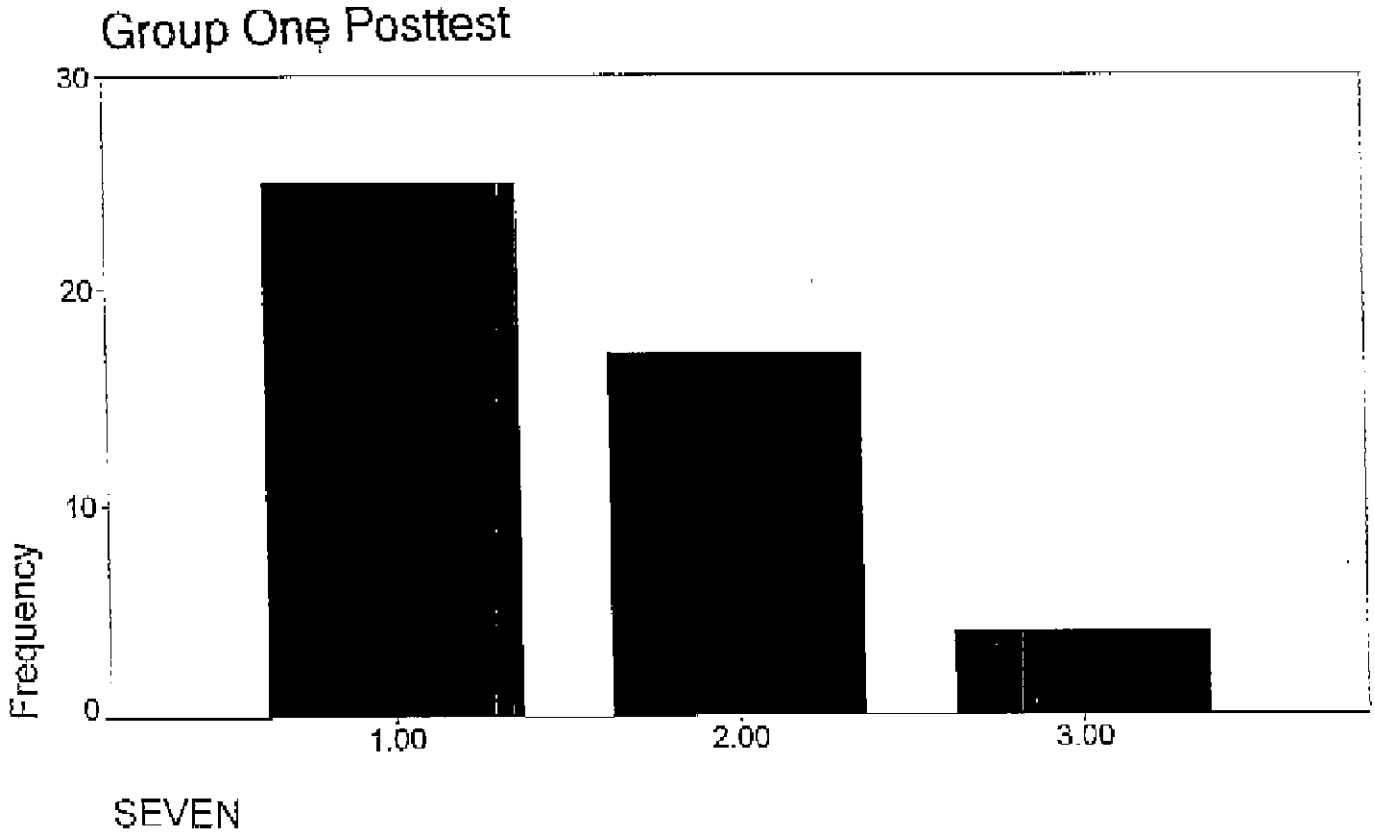
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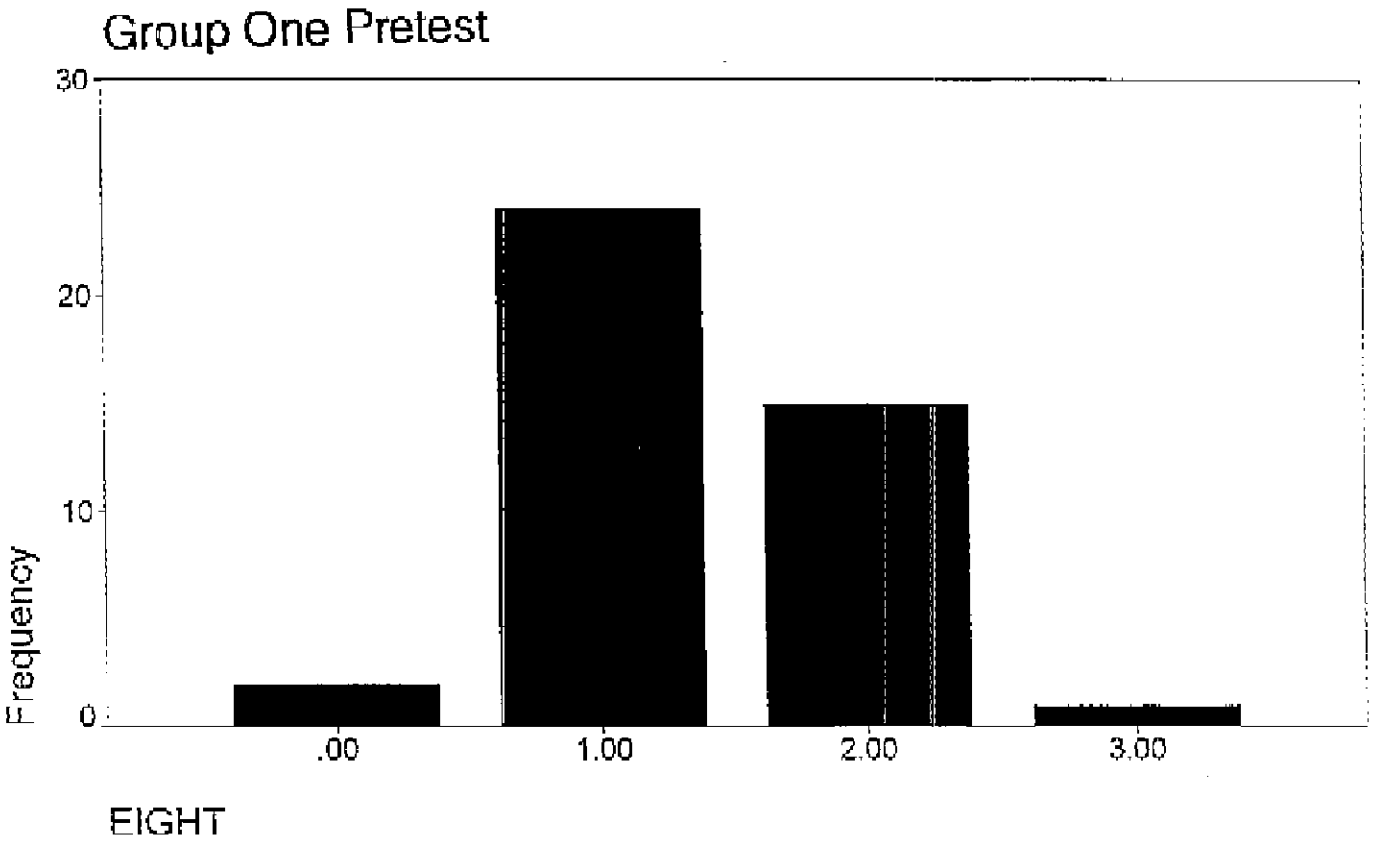
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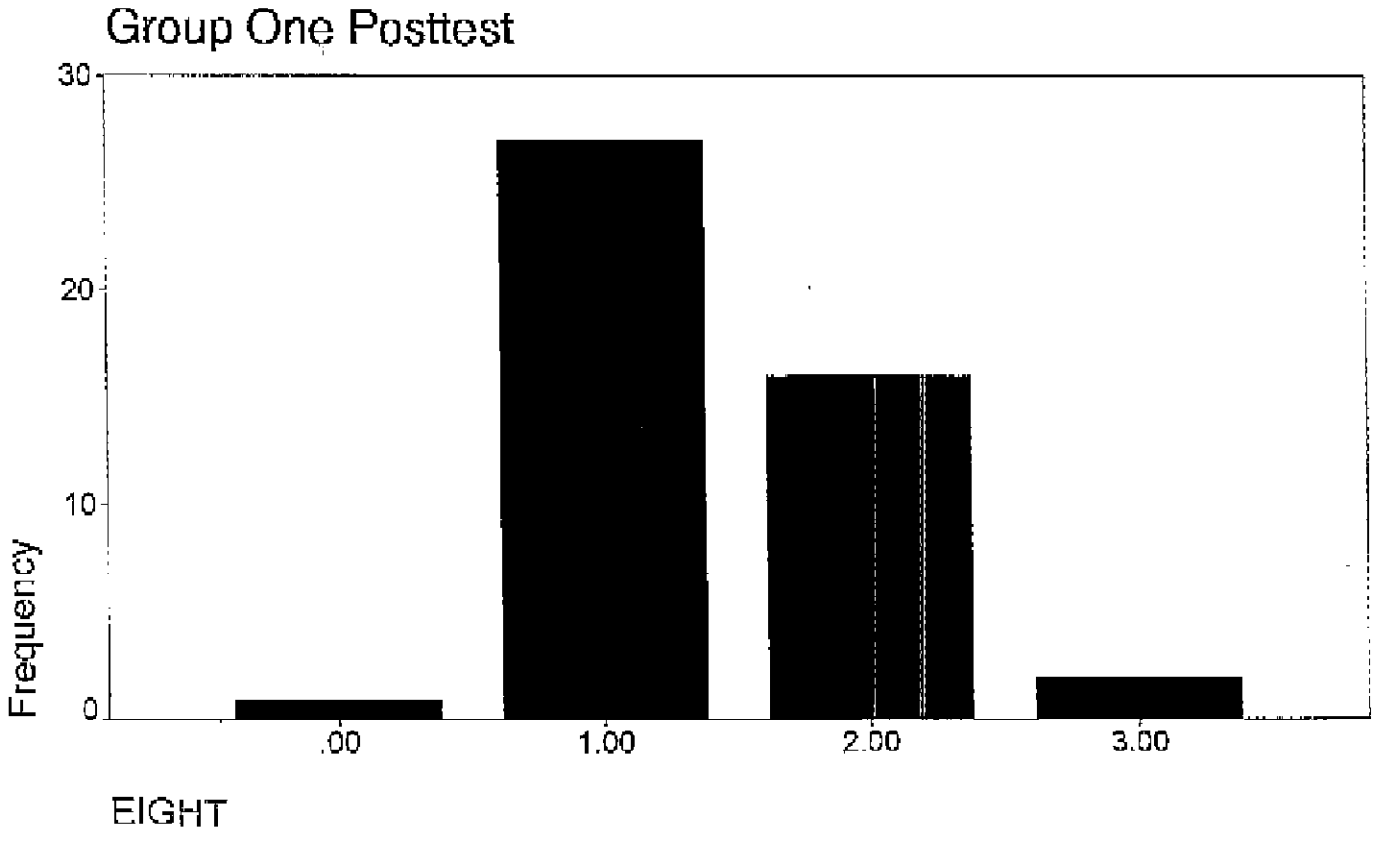
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3.00
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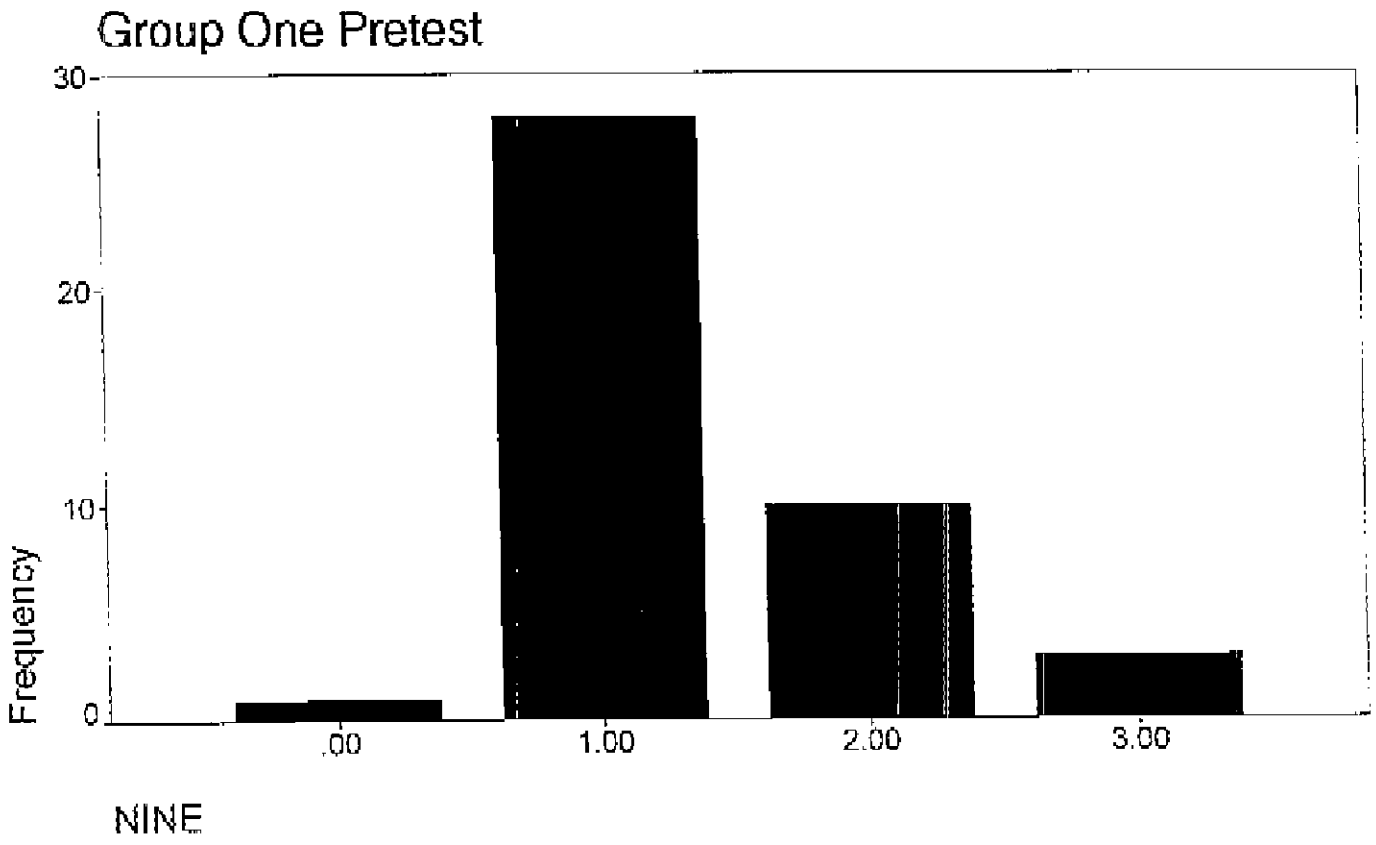
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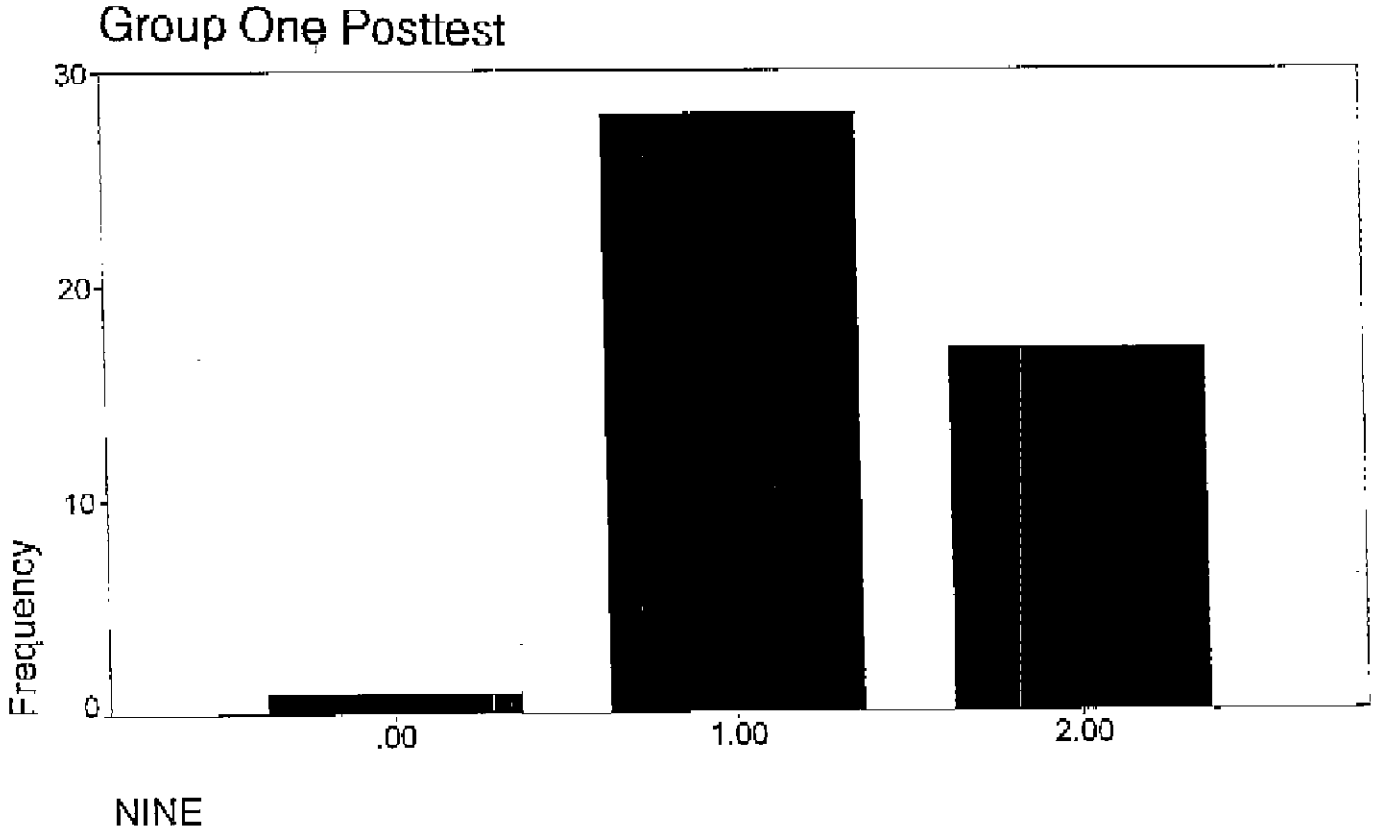
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Frequency
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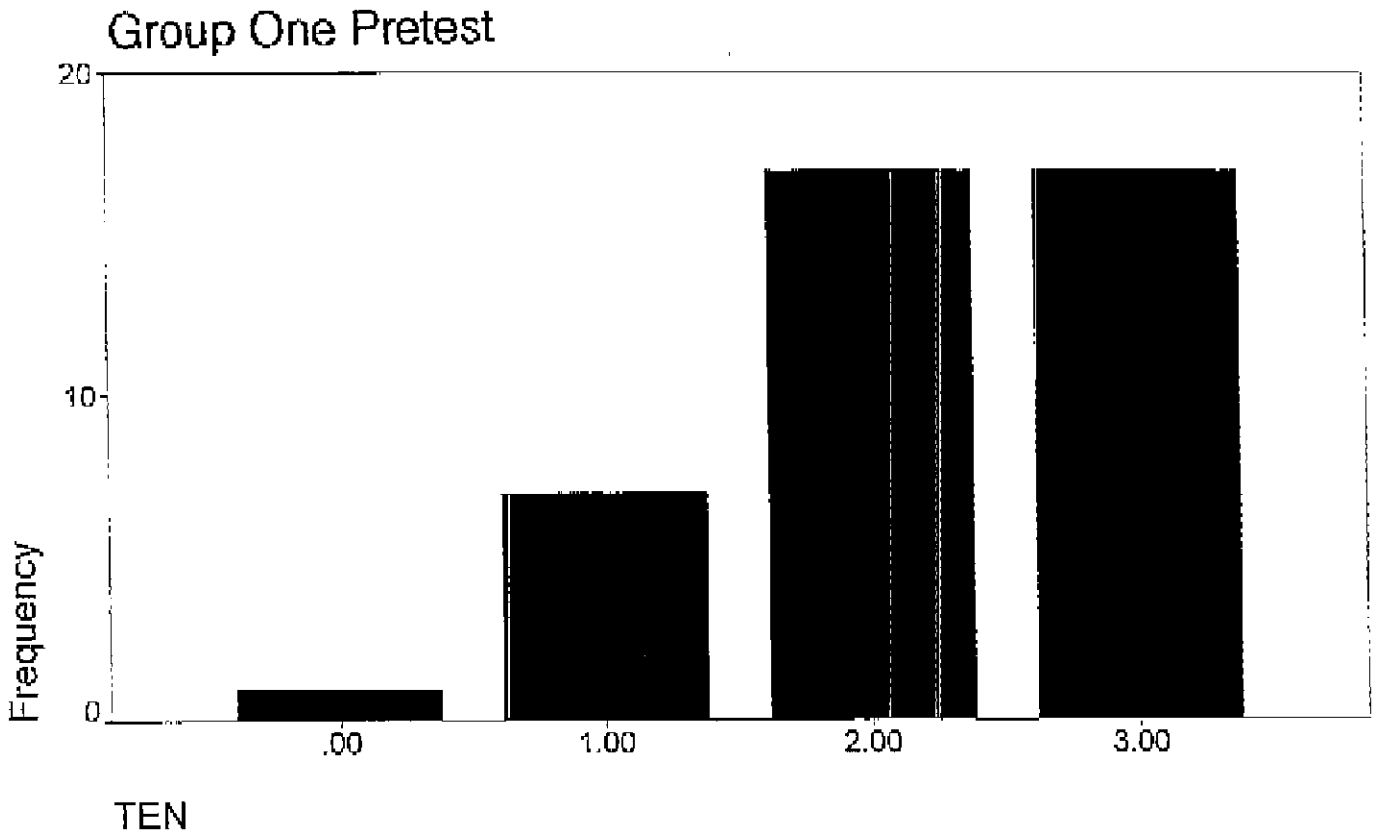
1.00
2.00
NINE

TABLE 2 A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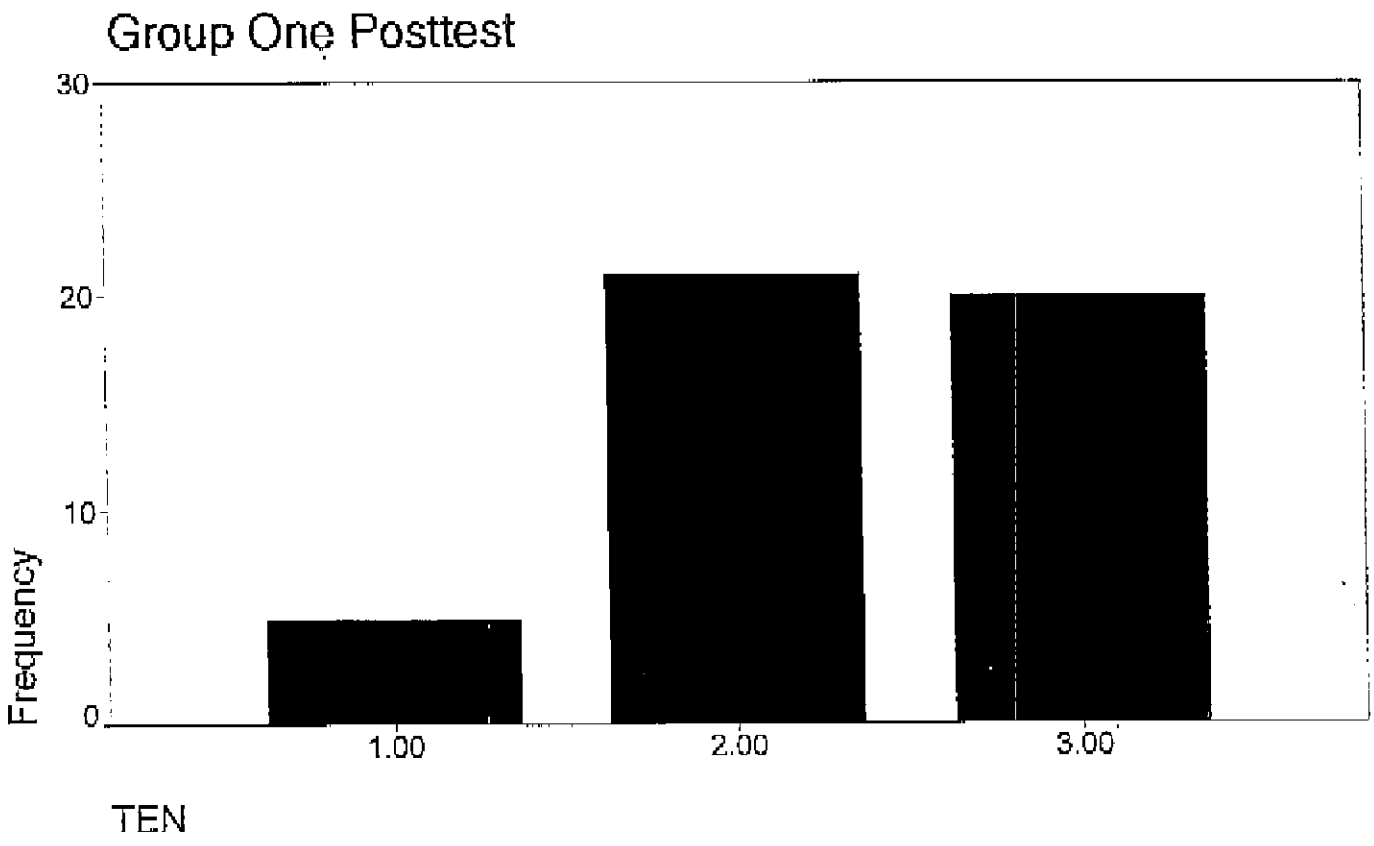
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Frequency
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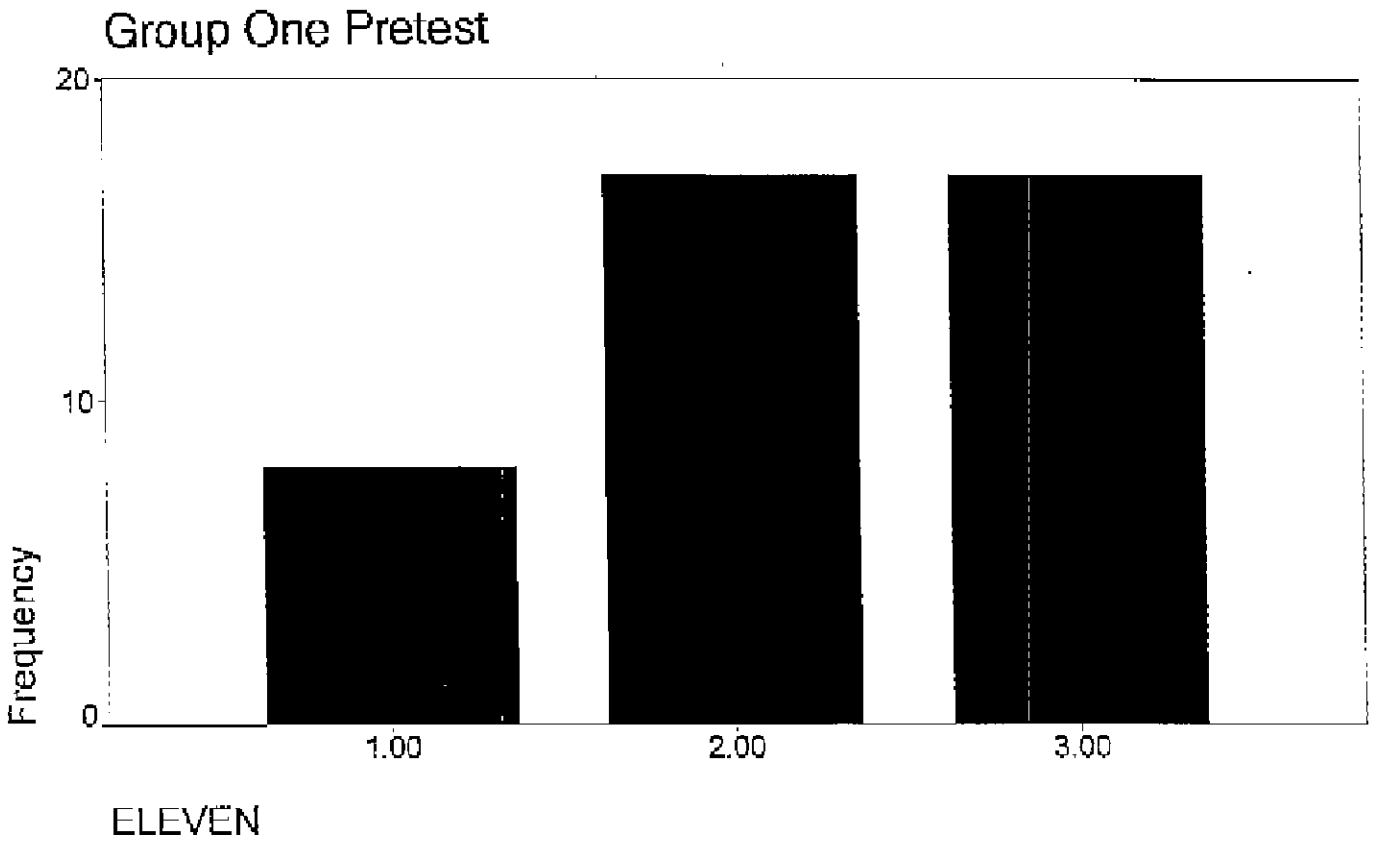
2.00
3.00
TEN

TABLE 2 A


Group One Pretest
20
10
0
Frequency
1.00
2.00
3.00
ELEVEN

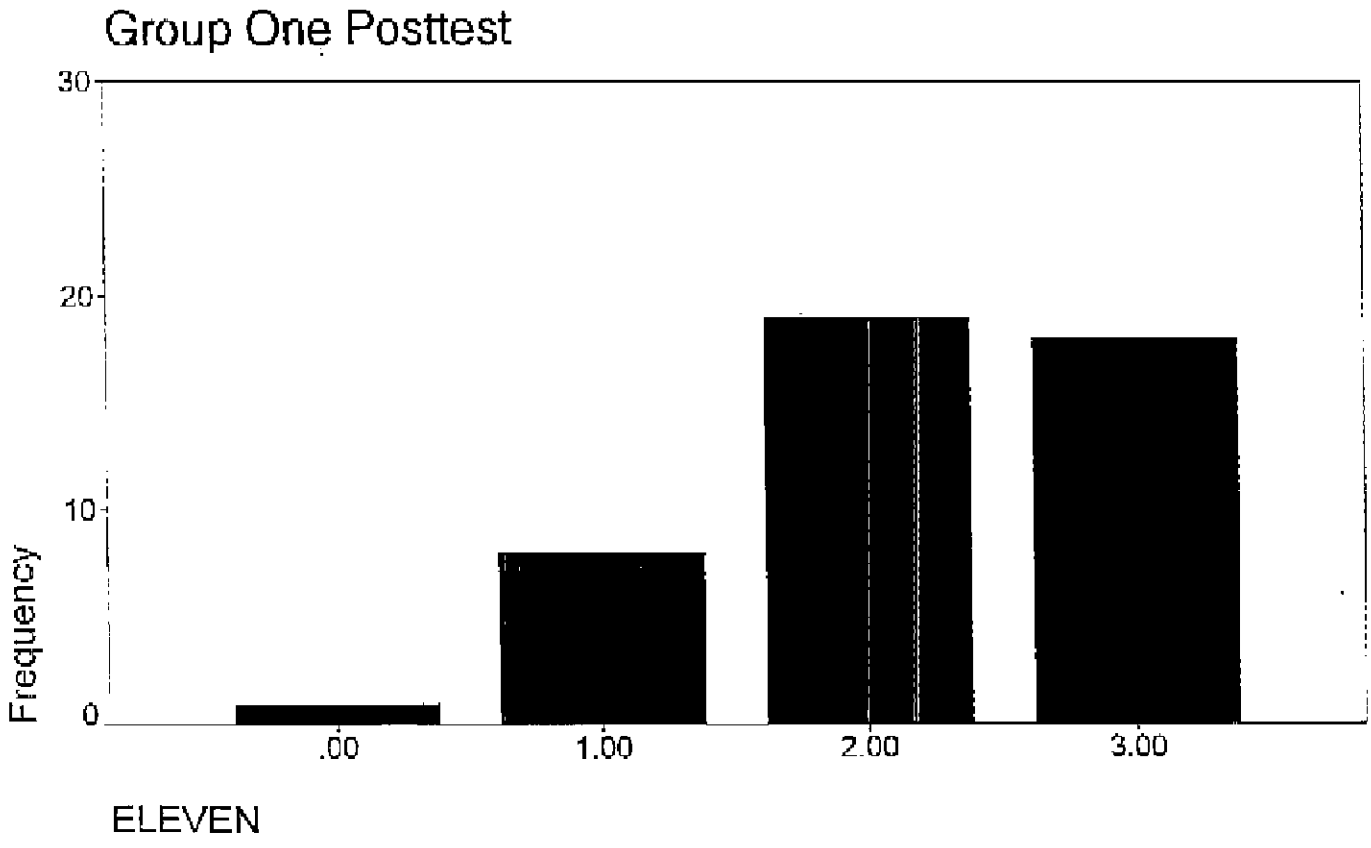
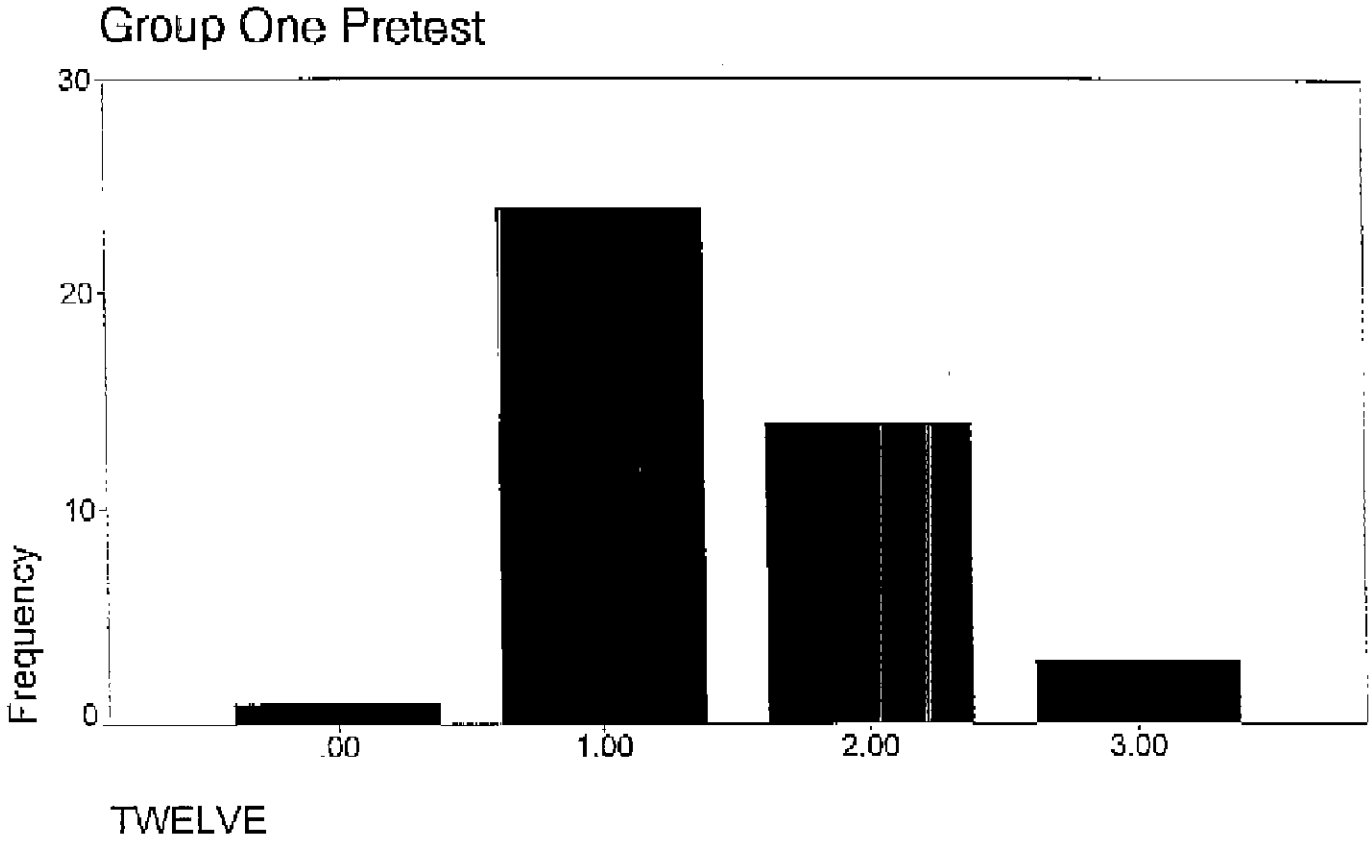

Group One Posttest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
ELEVEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
TWELVE

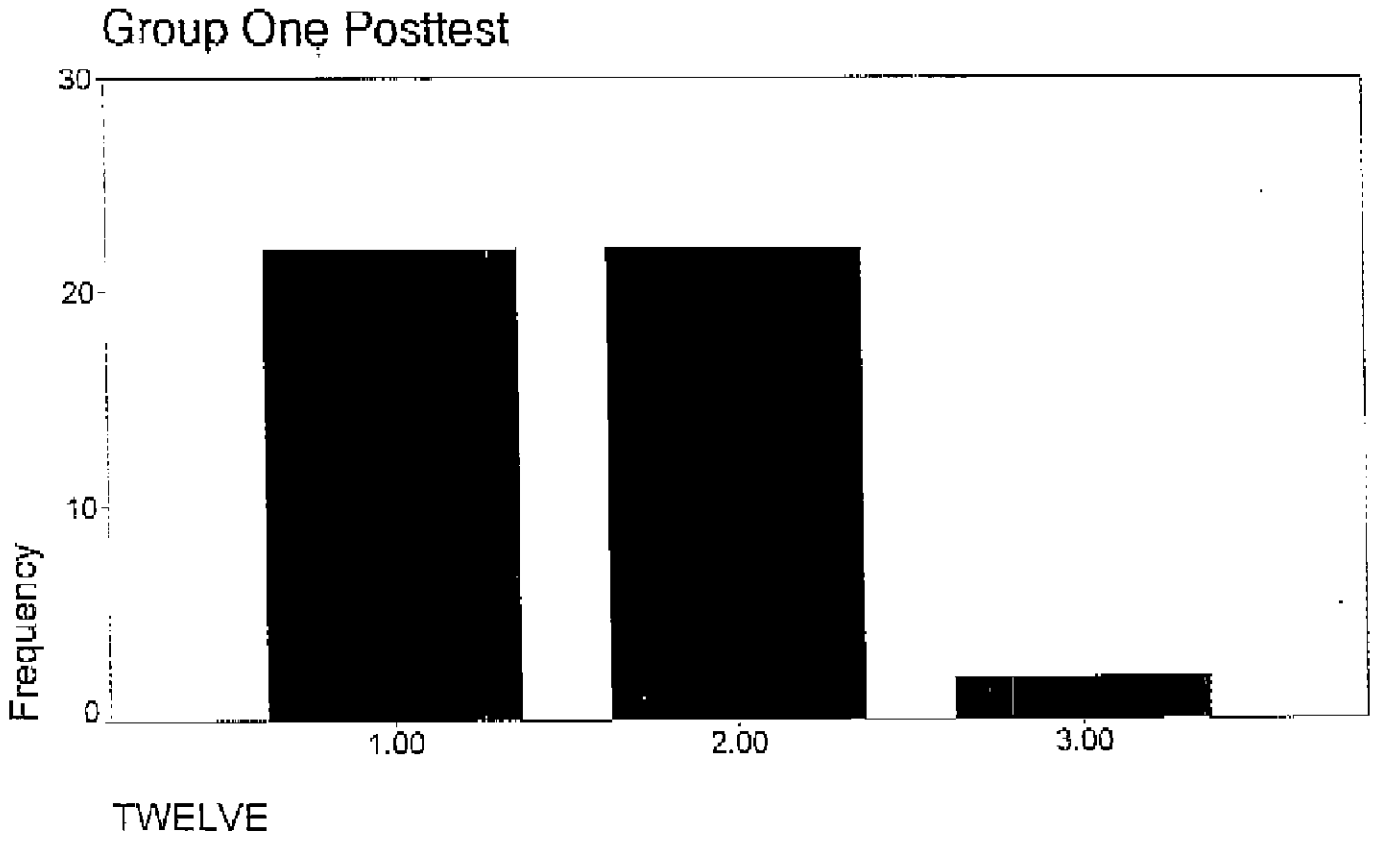
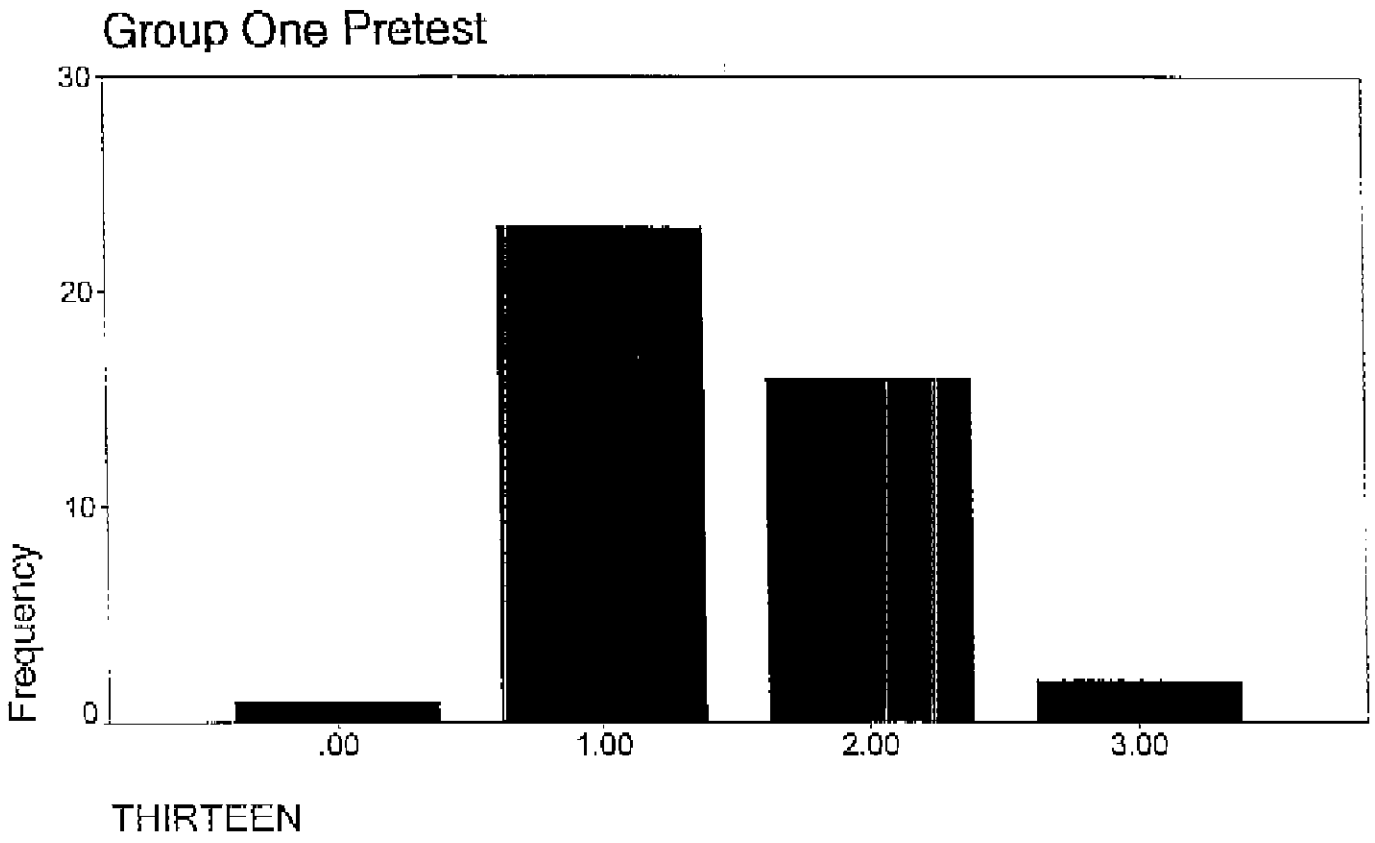

Group One Posttest
30
20
10
0
Frequency
1.00
2.00
3.00
TWELVE

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
THIRTEEN

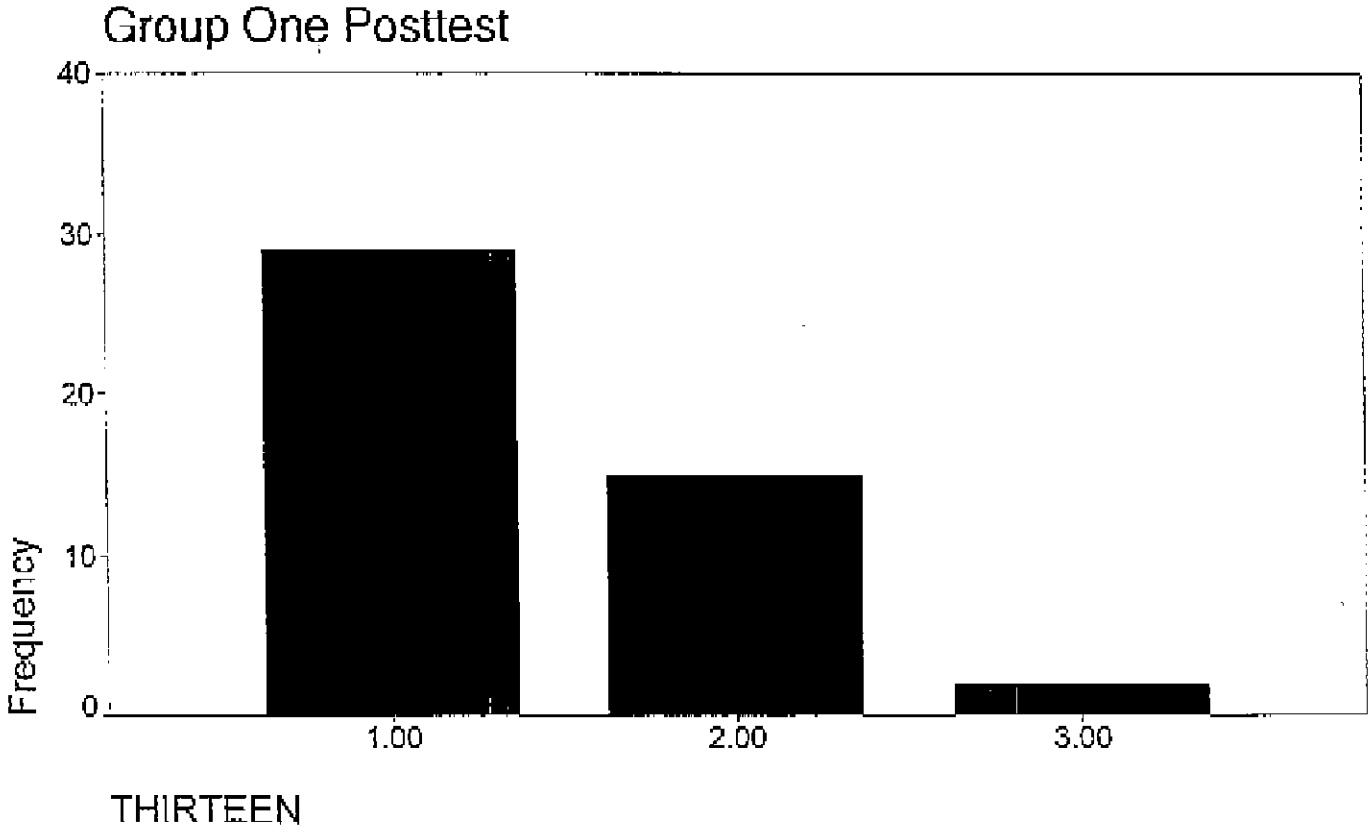
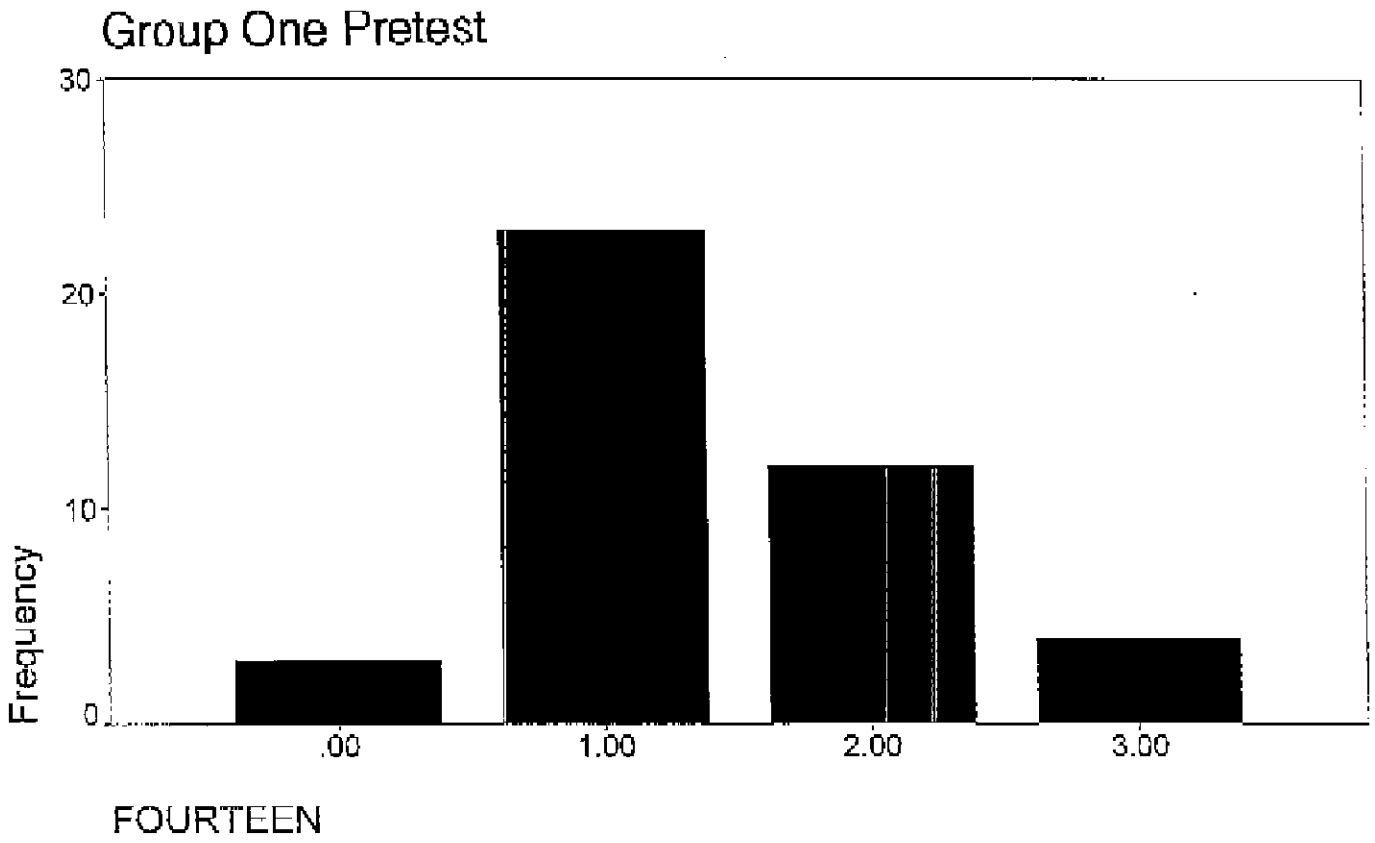

Group One Posttest
40
30
20
10
0
Frequency
1.00
2.00
3.00
THIRTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
FOURTEEN

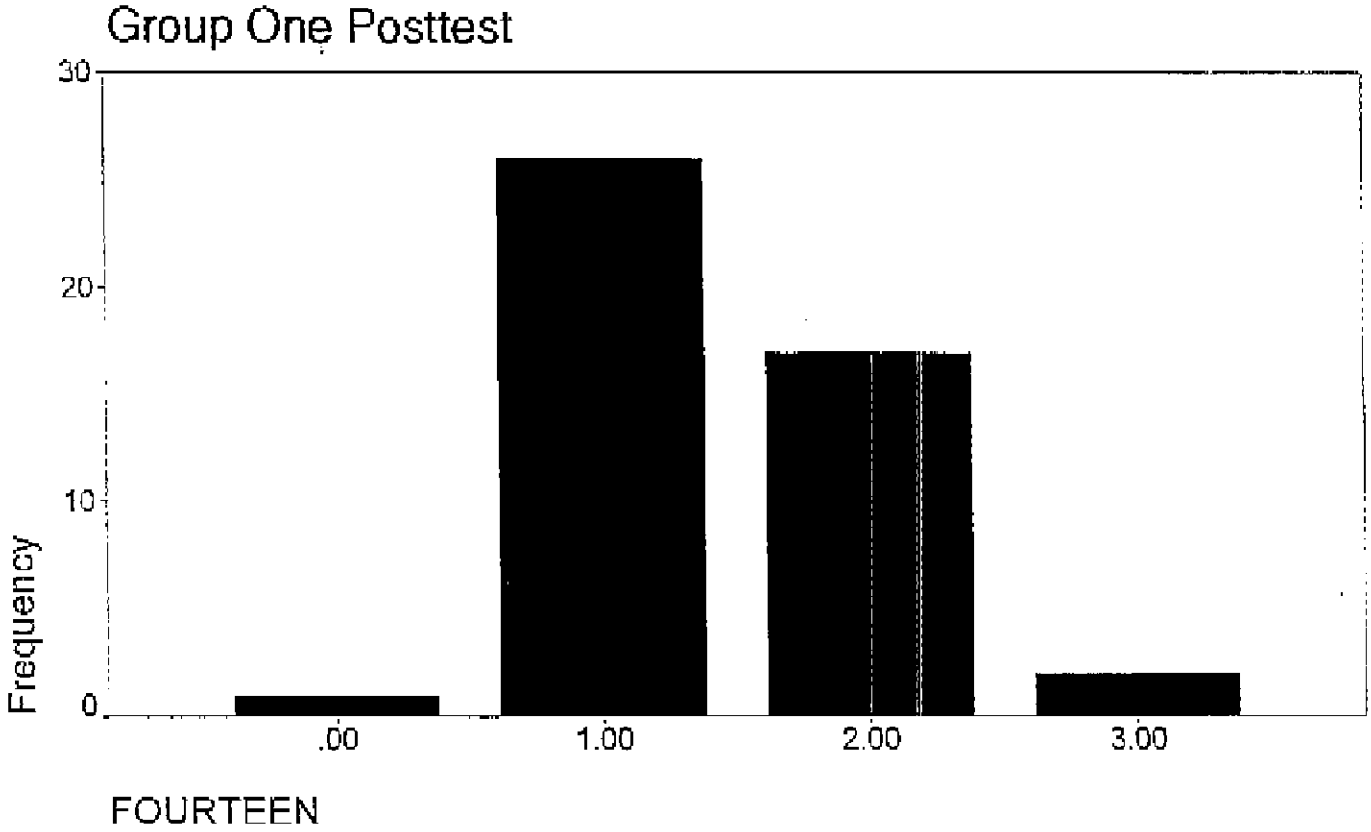
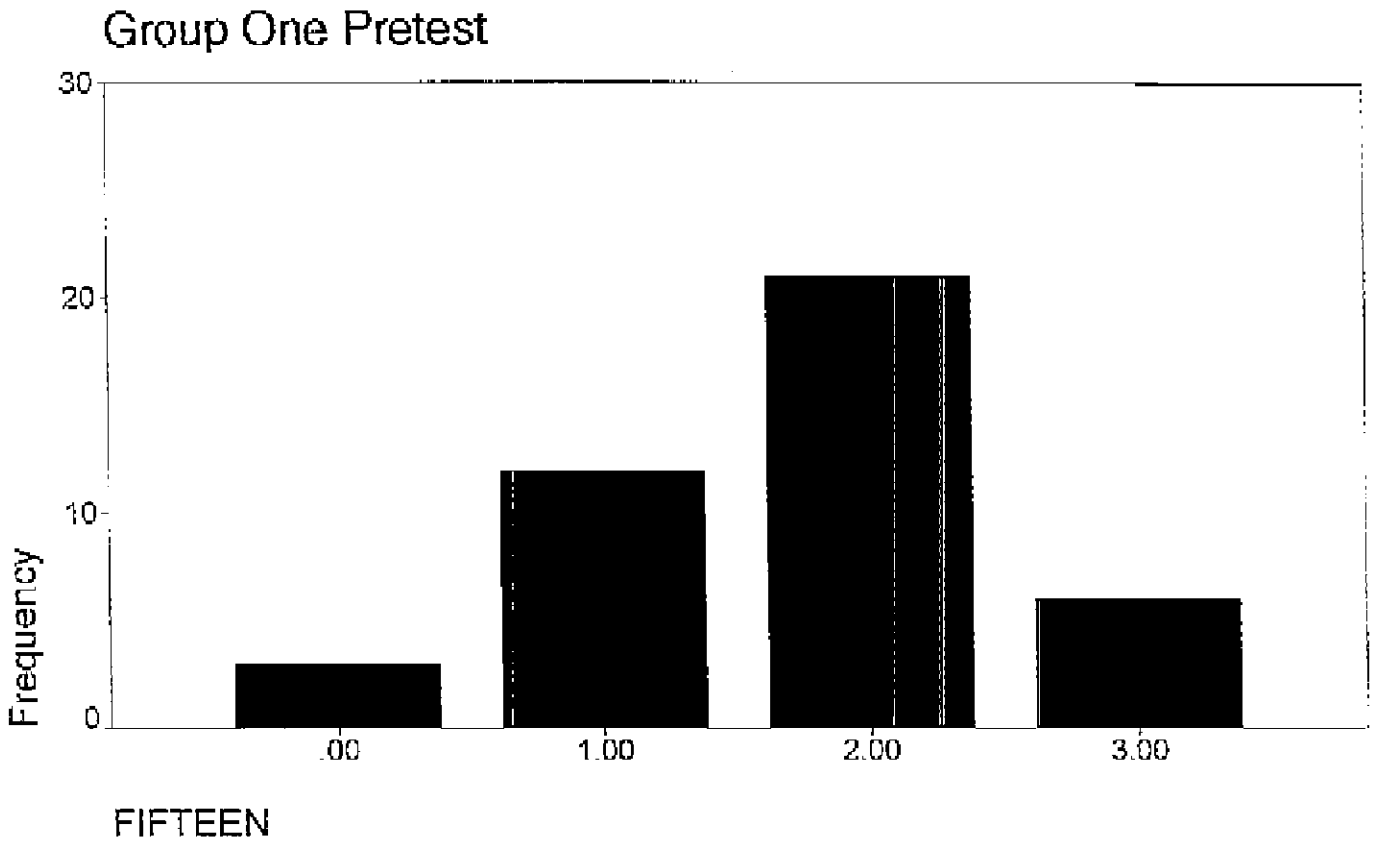

Group One Posttest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
FOURTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
FIFTEEN

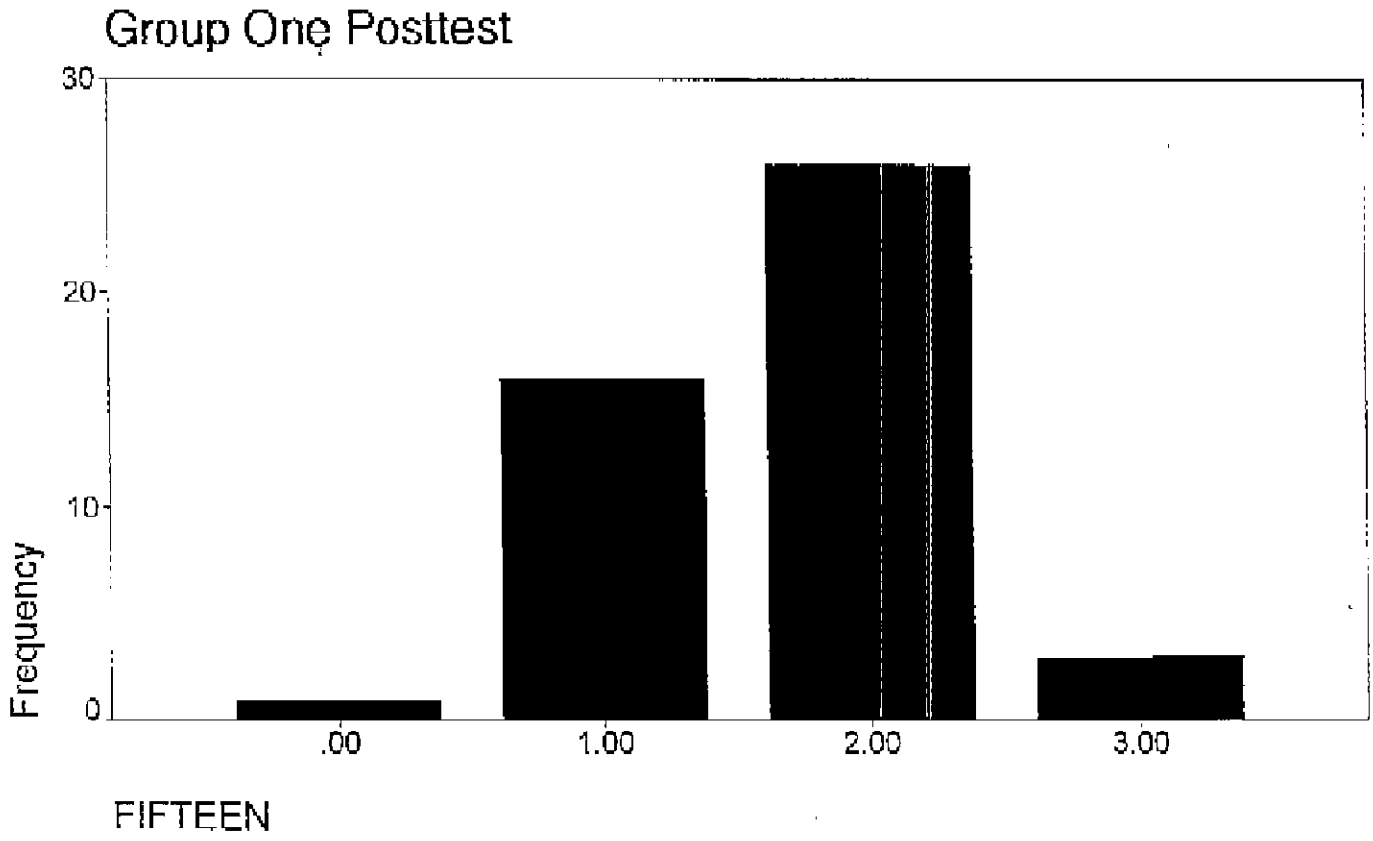
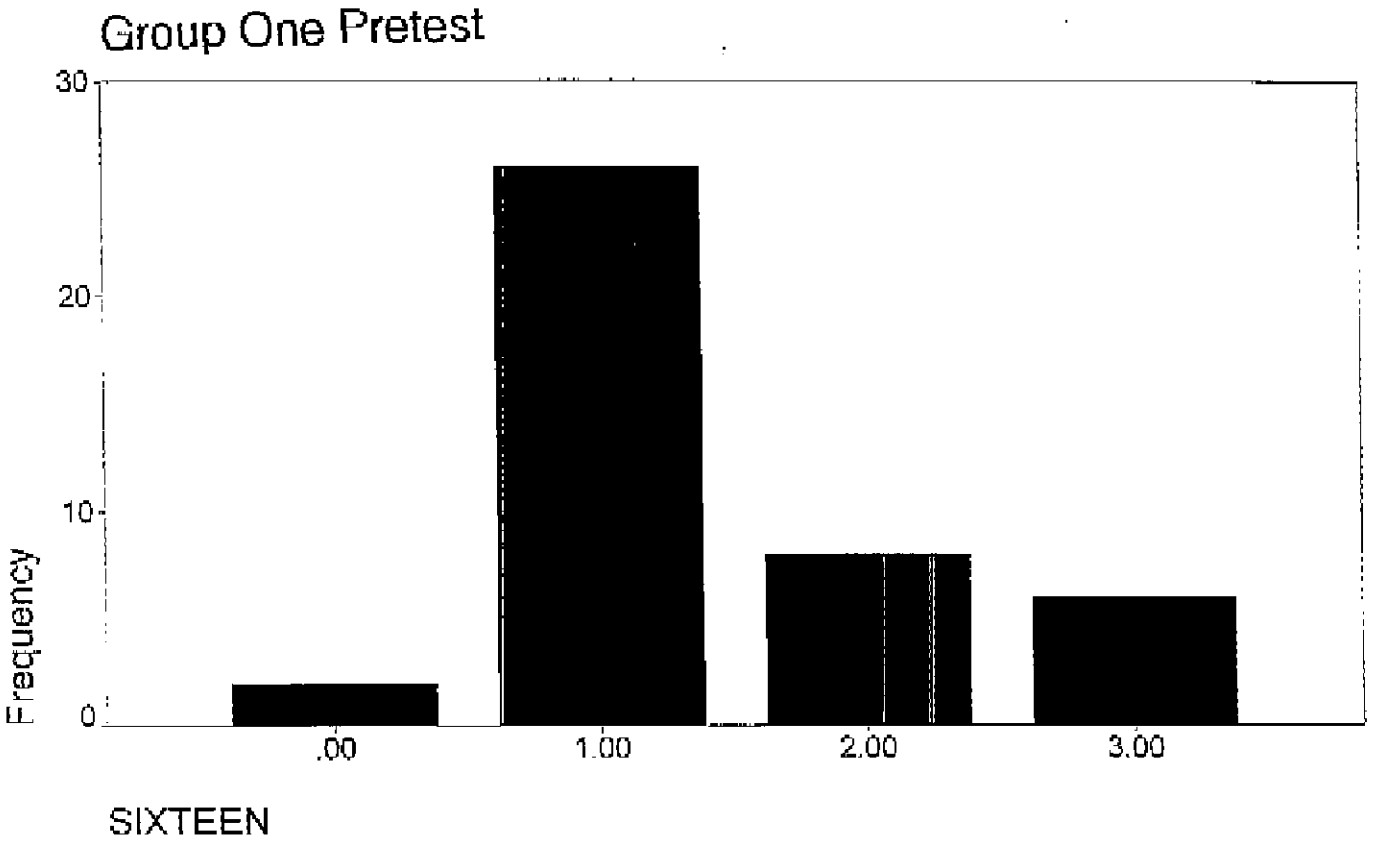

Group One Posttest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
FIFTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
SIXTEEN

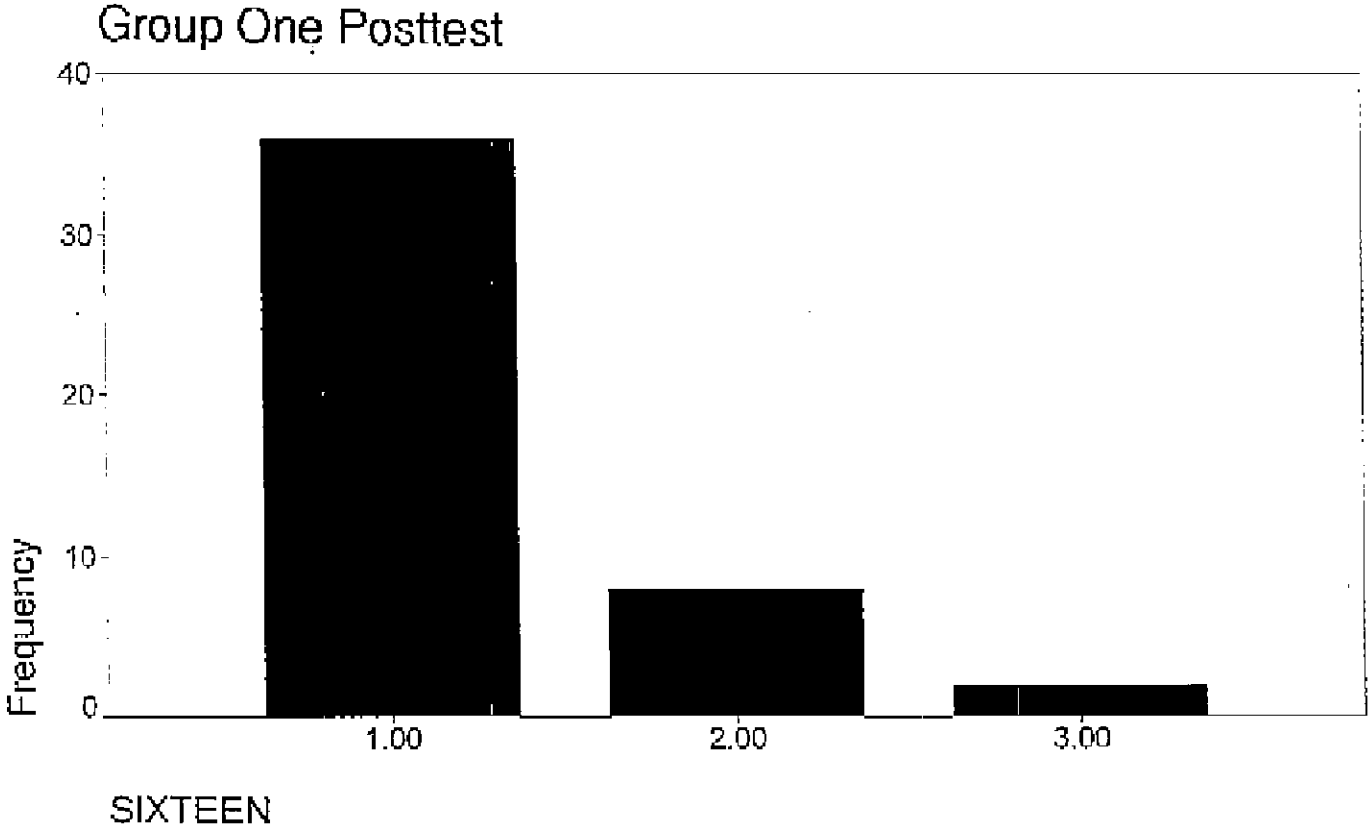
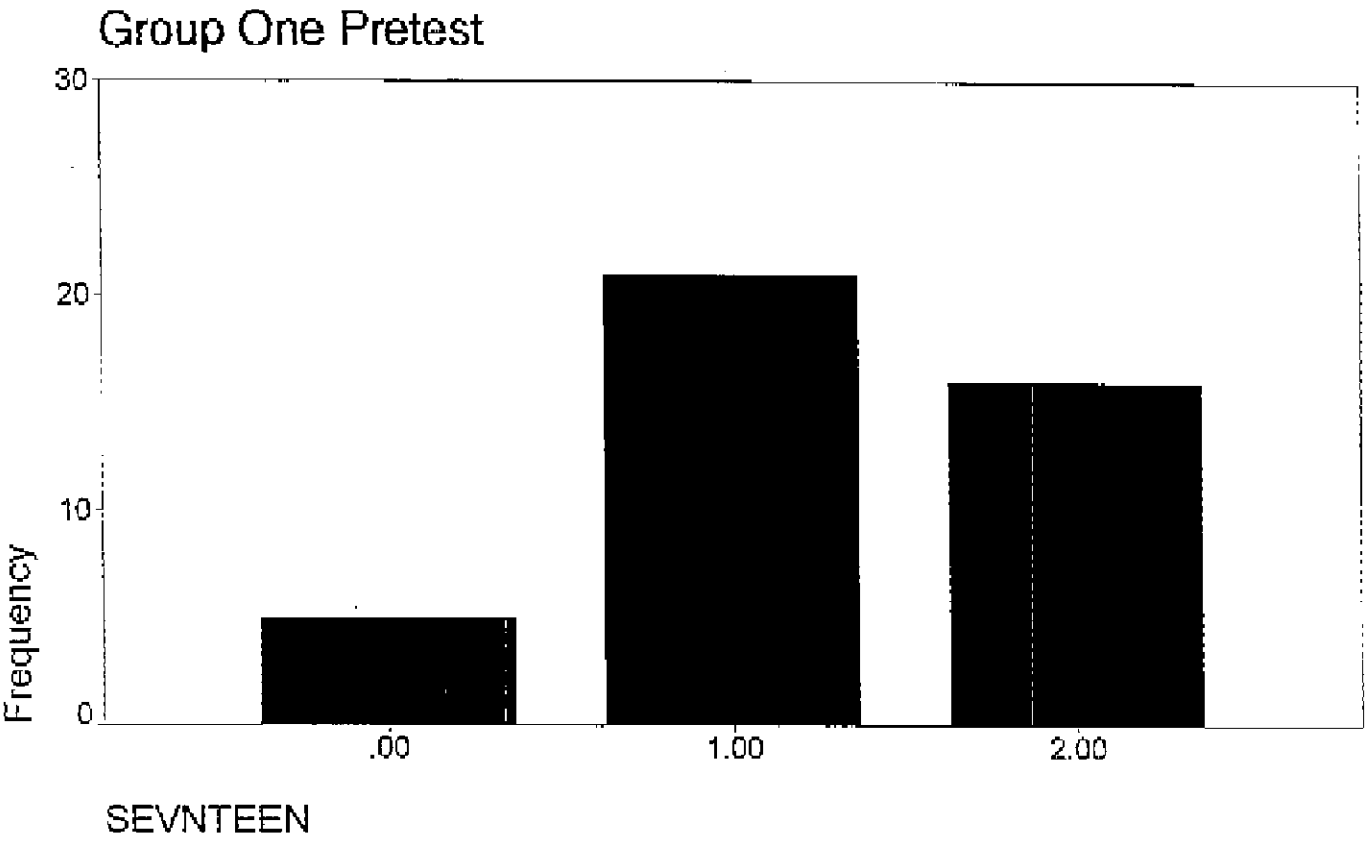

Group One Posttest
40
30
20
10
0
Frequency
1.00
2.00
3.00
SIXTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
SEVNTEEN

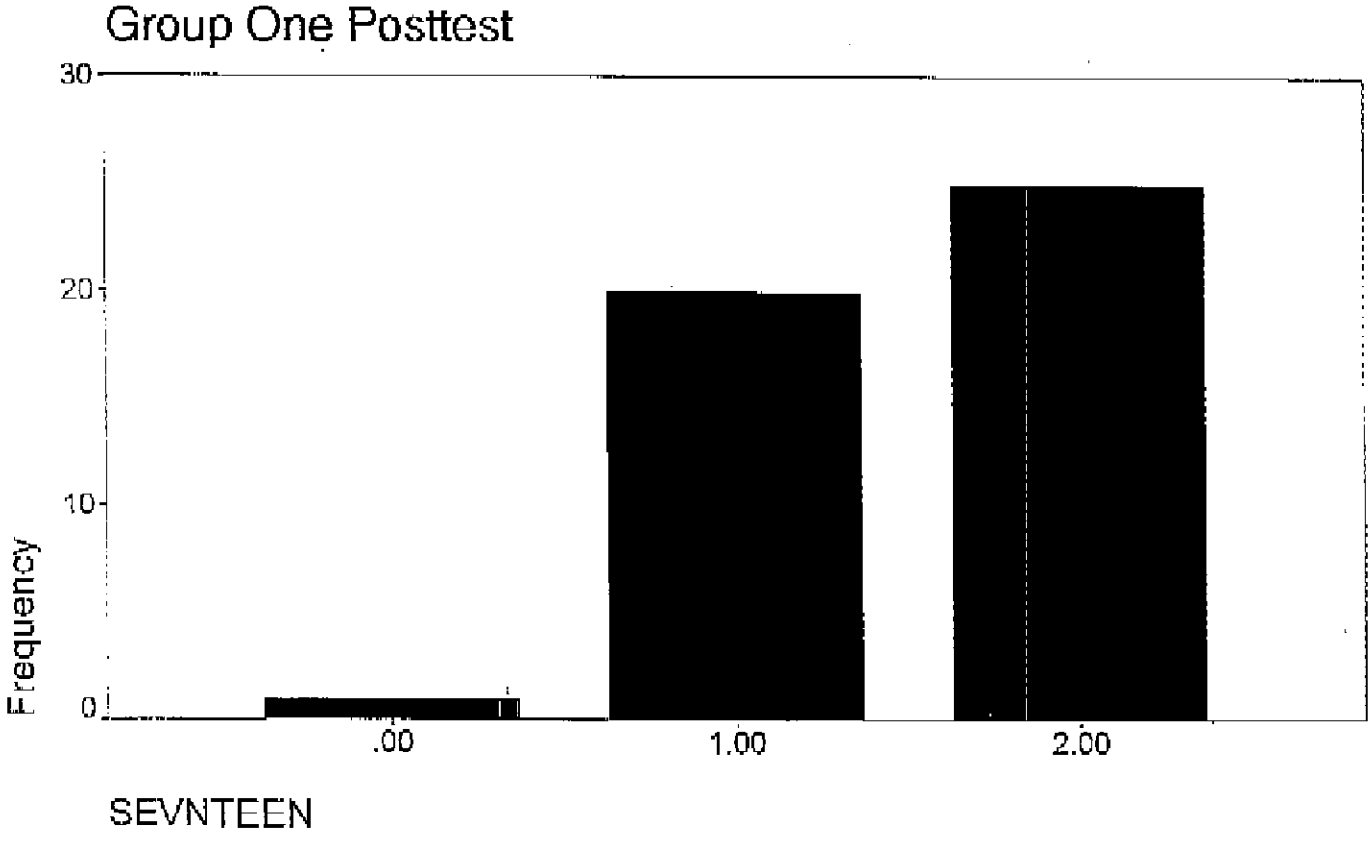
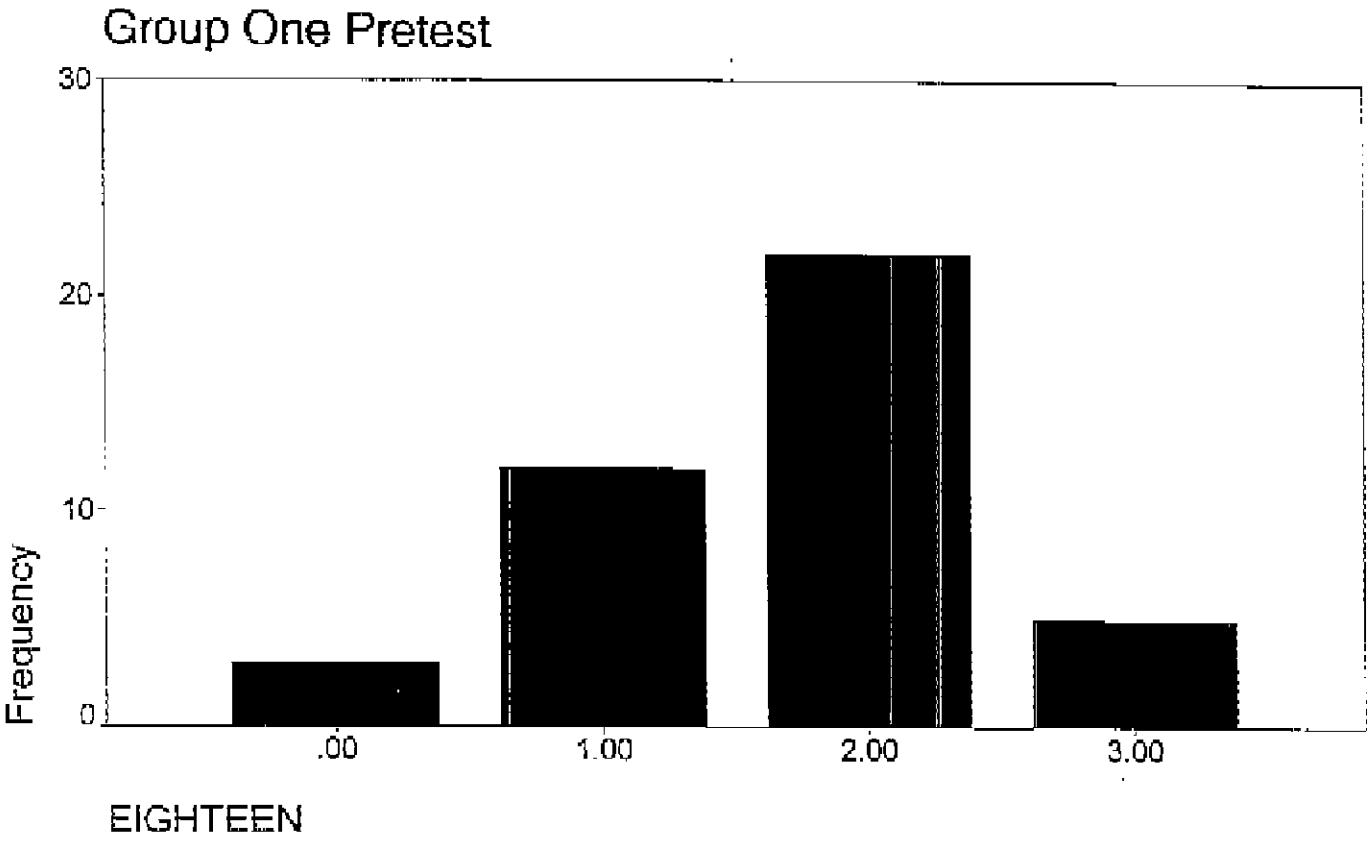

Group One Posttest
30
20
10
0
Frequency
.00
1.00
2.00
SEVNTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
3.00
EIGHTEEN

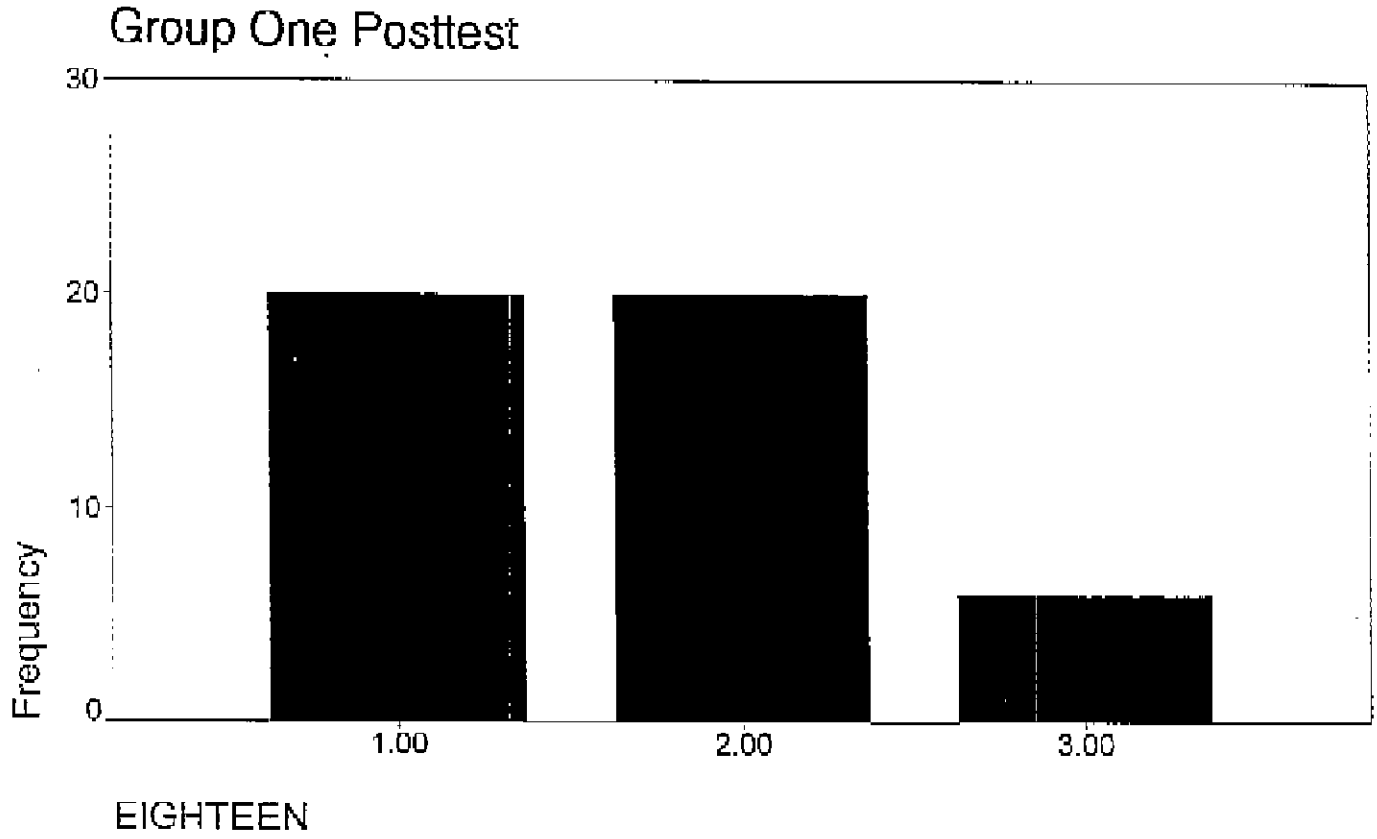
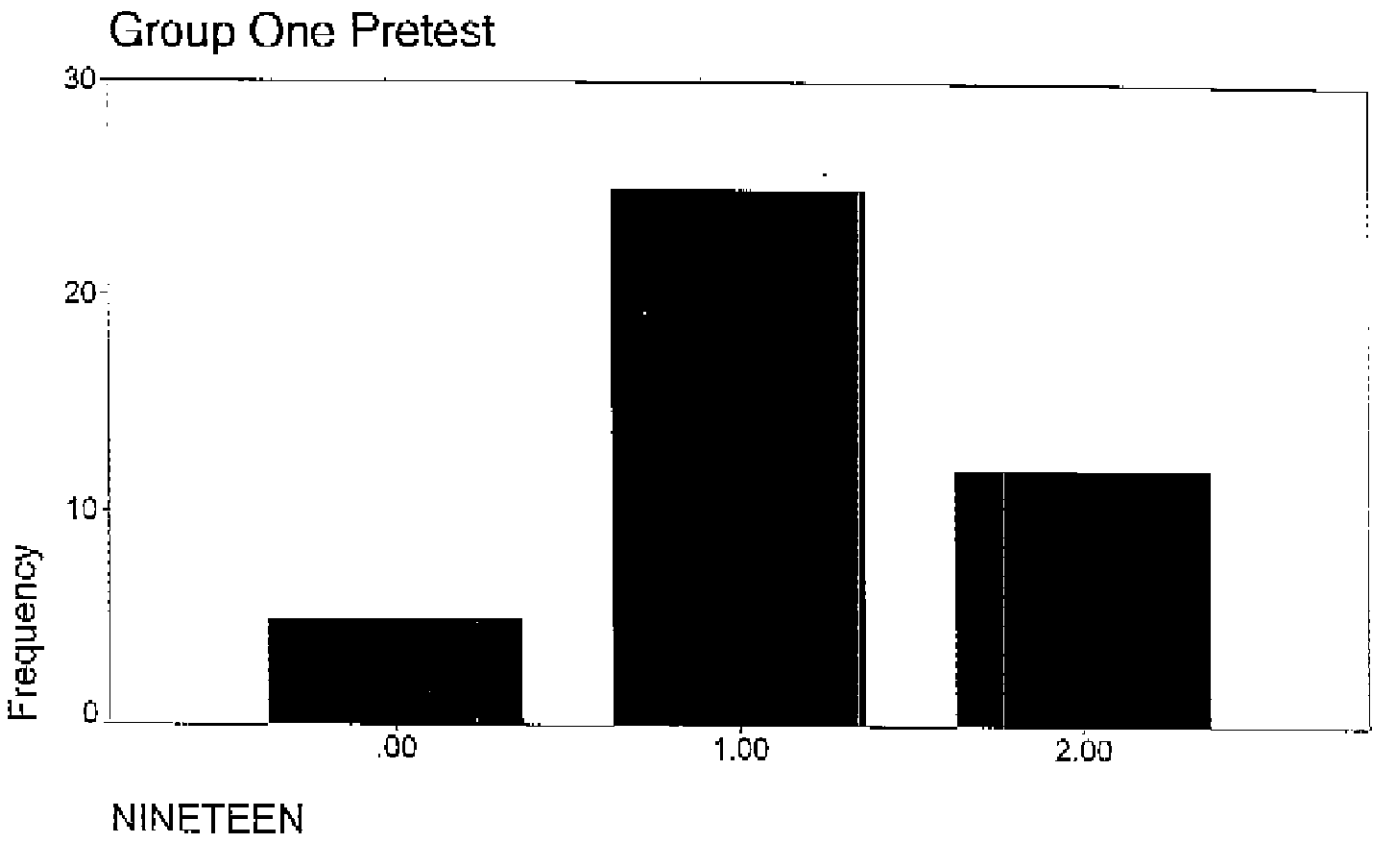

Group One Posttest
30
20
10
0
Frequency
1.00
2.00
3.00
EIGHTEEN

TABLE 2 A


Group One Pretest
30
20
10
0
Frequency
.00
1.00
2.00
NINETEEN

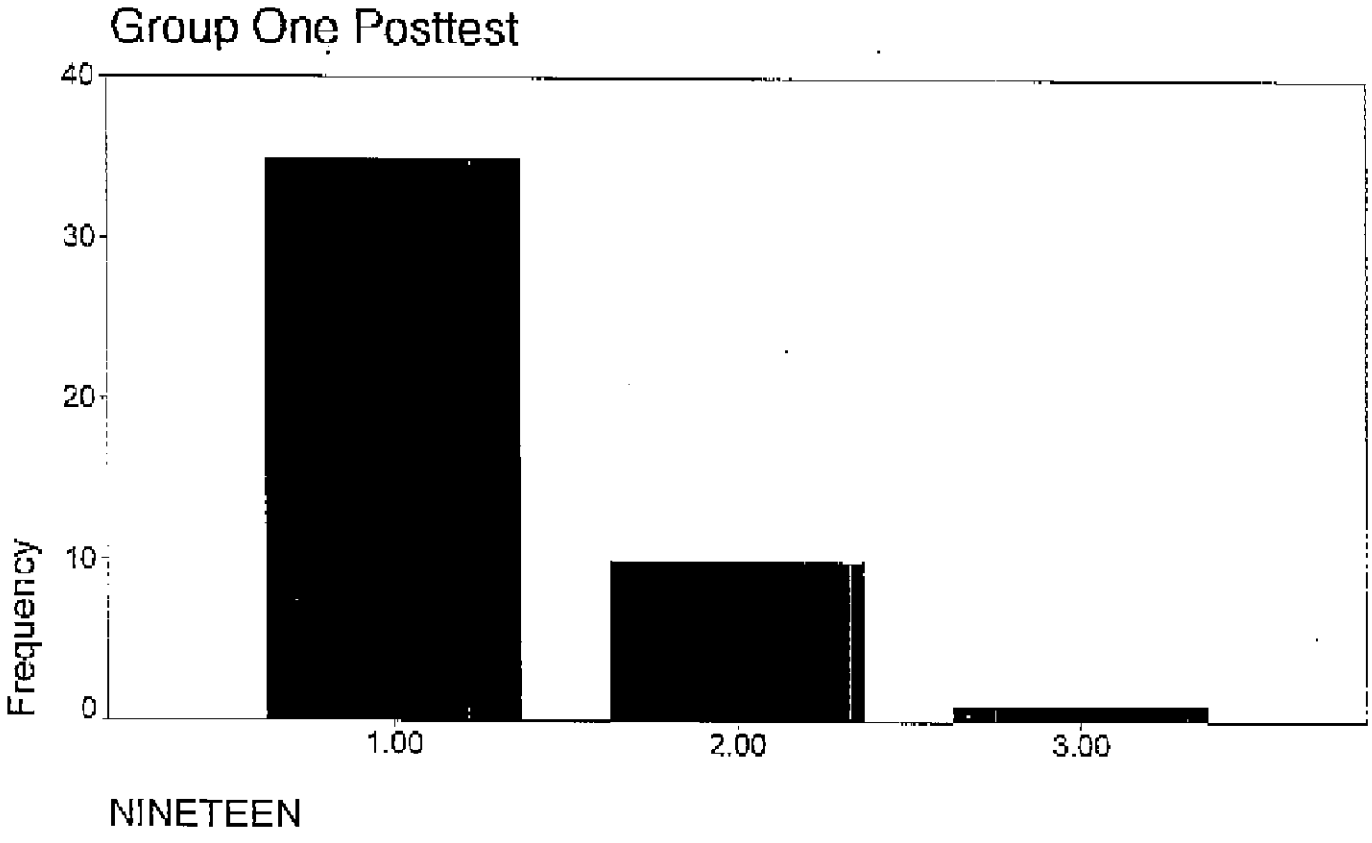
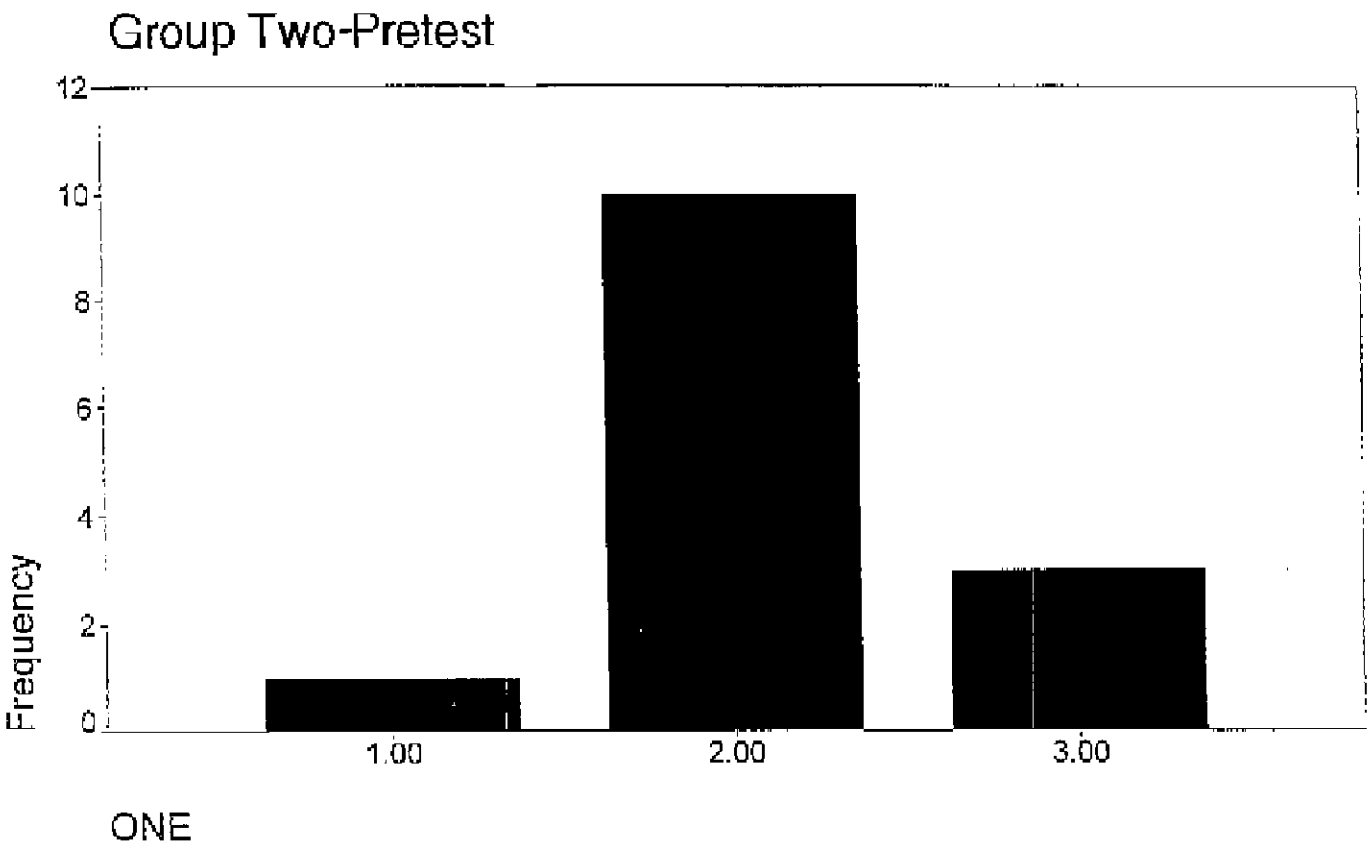

Group One Posttest
40
30
20
10
0
Frequency
1.00
2.00
3.00
NINETEEN

TABLE 2 B


Group Two-Pretest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
ONE

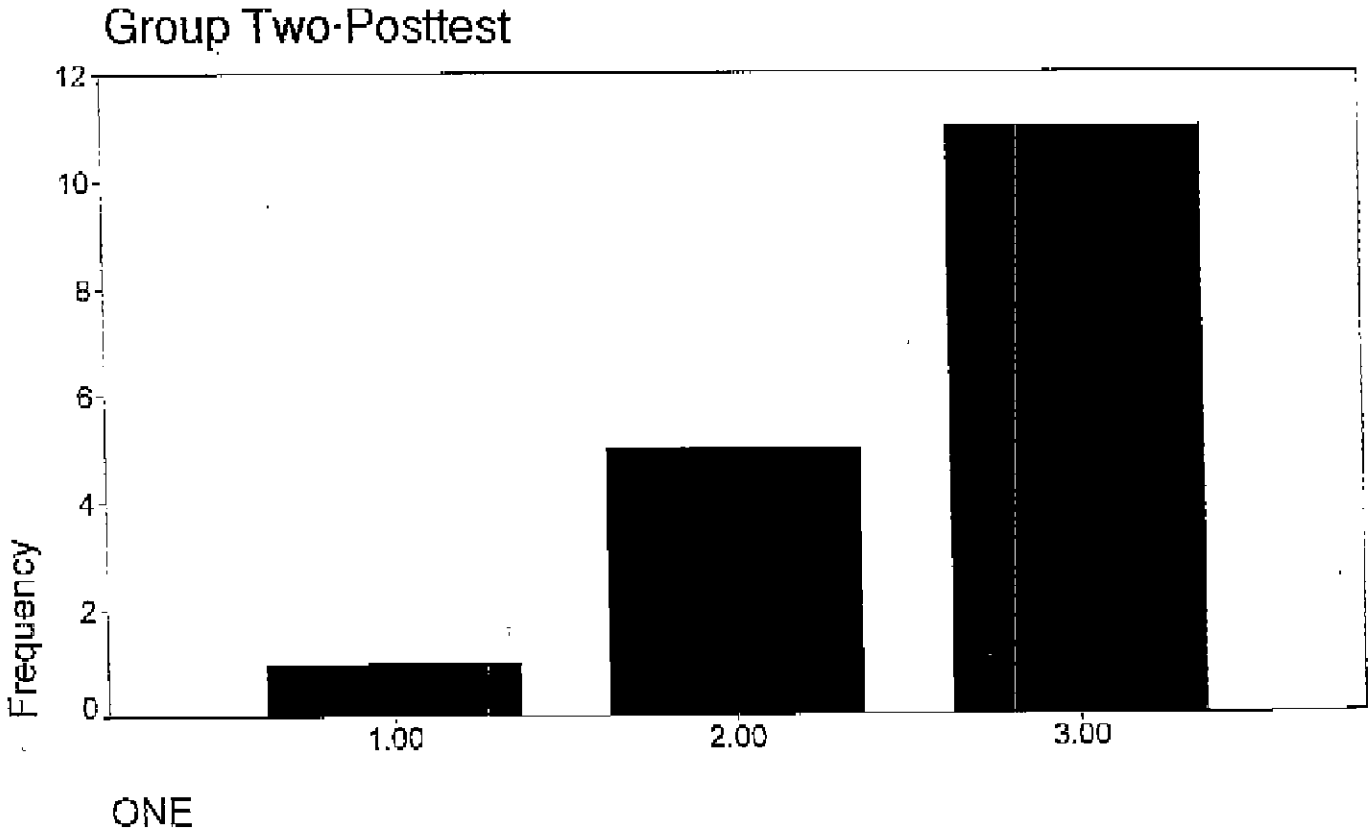
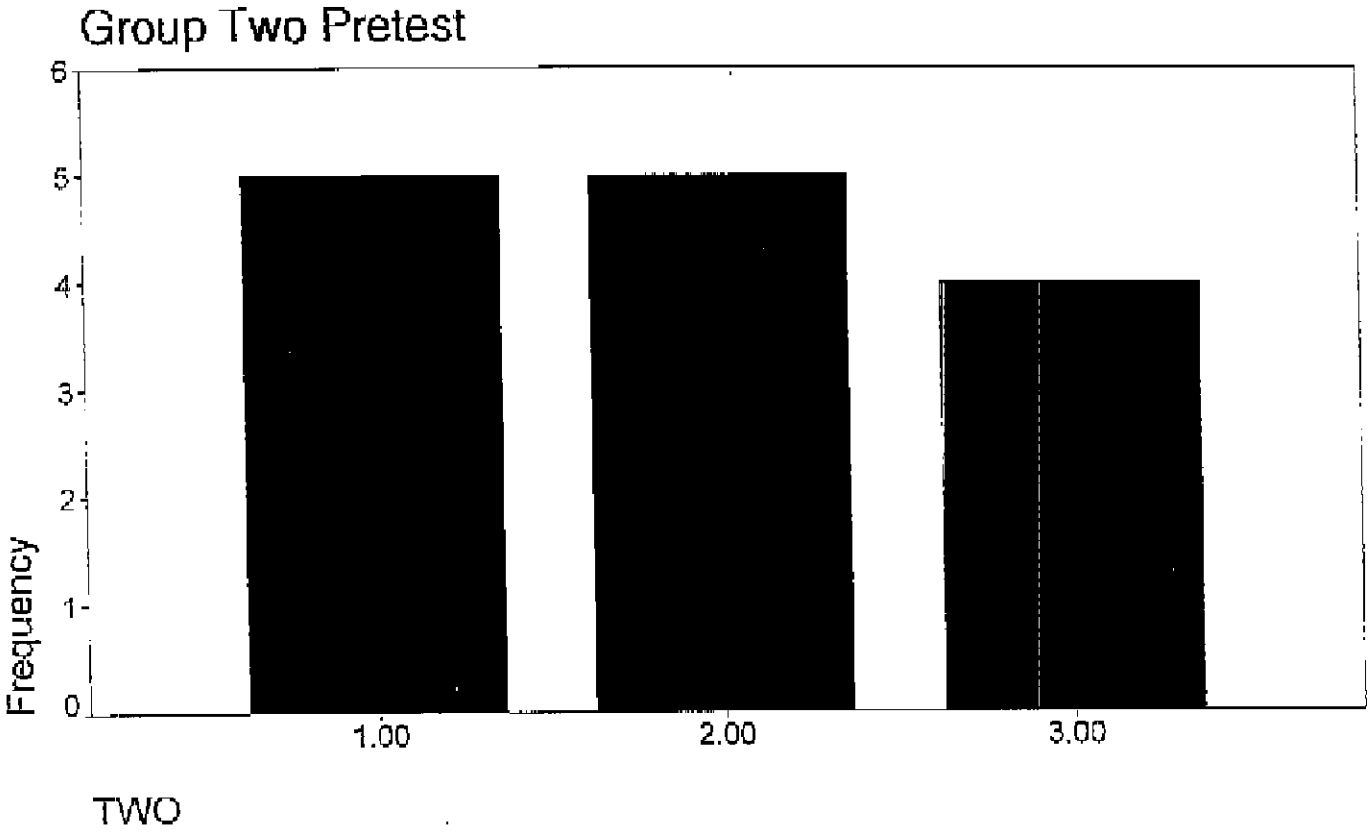

Group Two-Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
ONE

TABLE 2 B


Group Two Pretest
6
5
4
3
2
1
0
Frequency
1.00
2.00
3.00
TWO

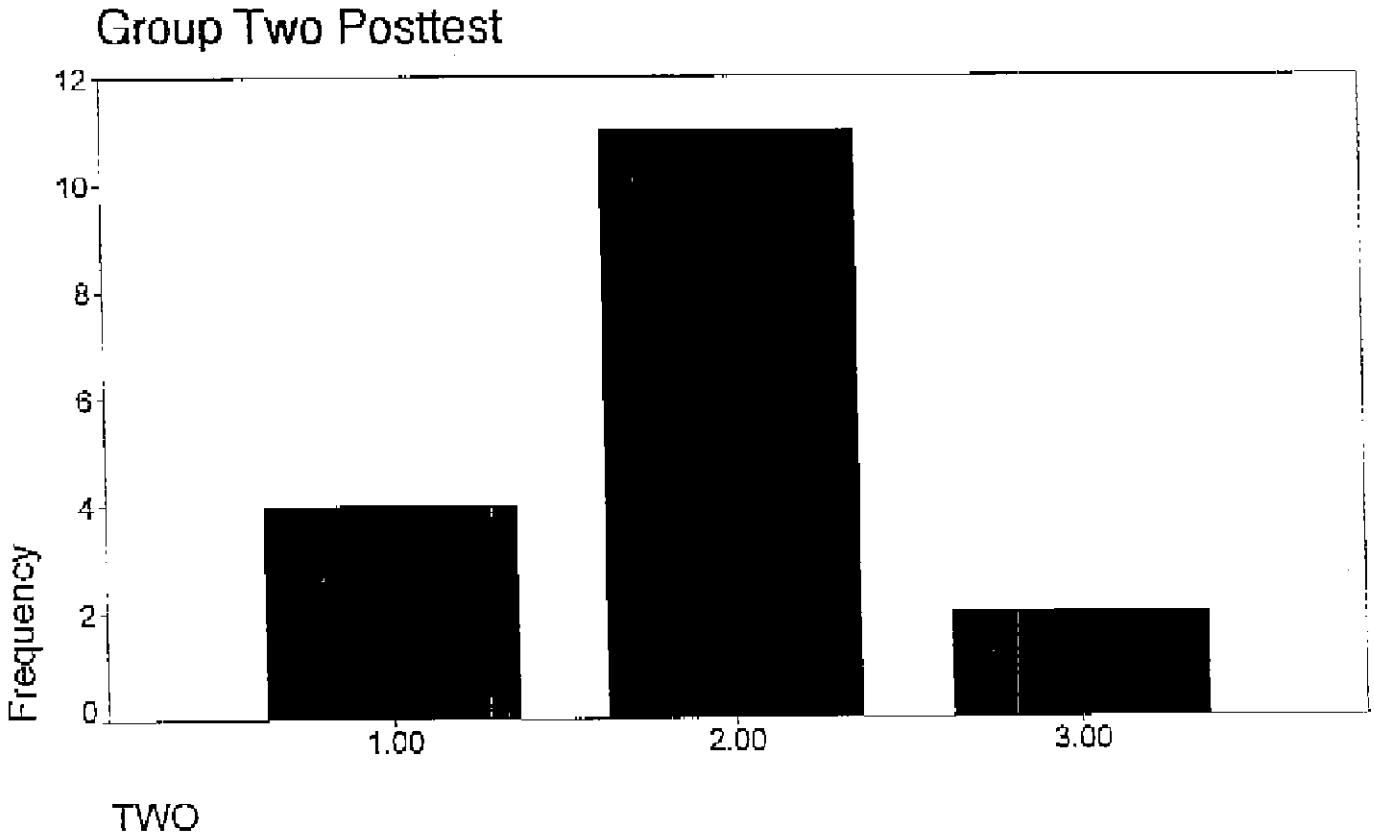
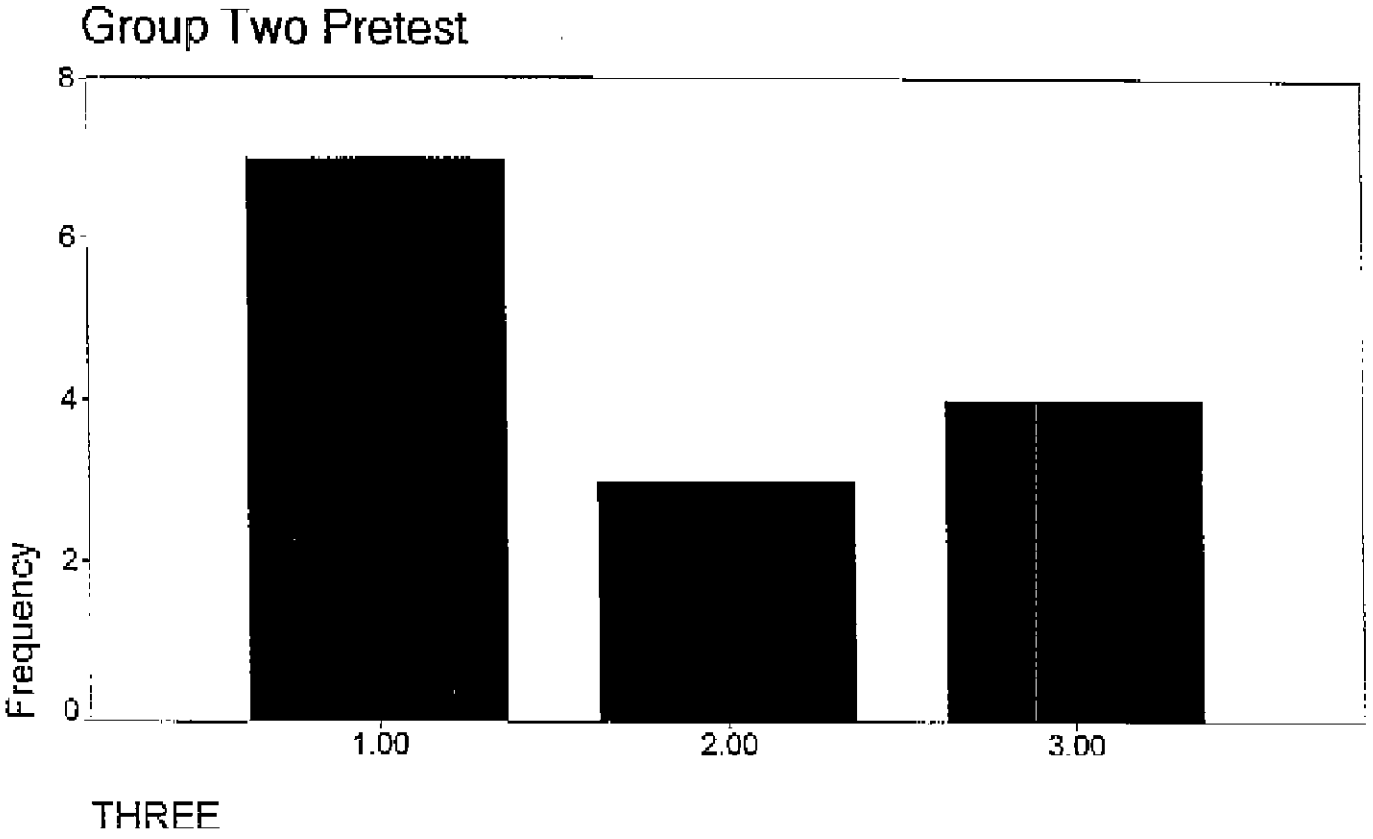

Group Two Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
TWO

TABLE 2 B


Group Two Pretest
8
6
4
2
0
Frequency
1.00
2.00
3.00
THREE

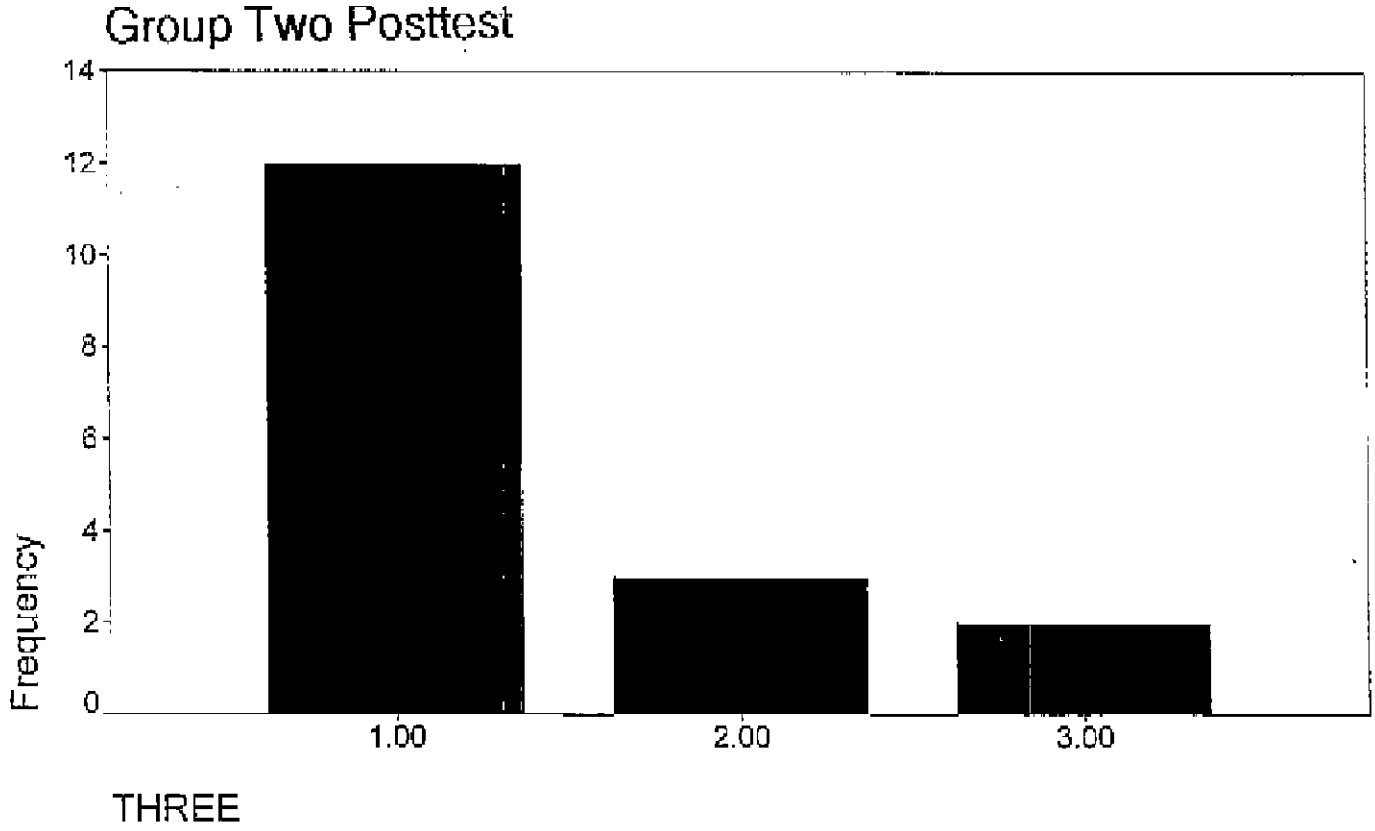
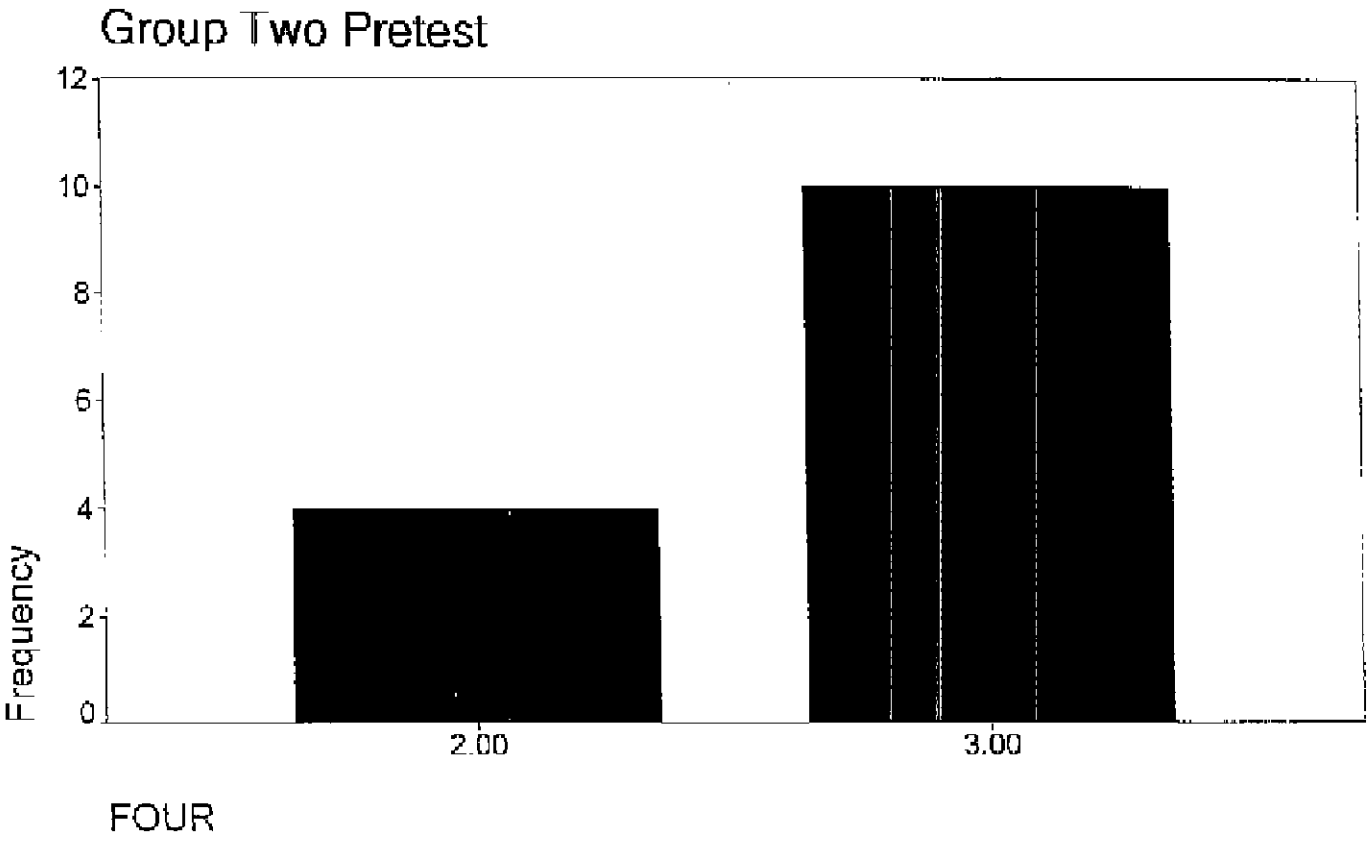

Group Two Posttest
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
THREE

TABLE 2 B


Group Two Pretest
12
10
8
6
4
2
0
Frequency
2.00
3.00
FOUR

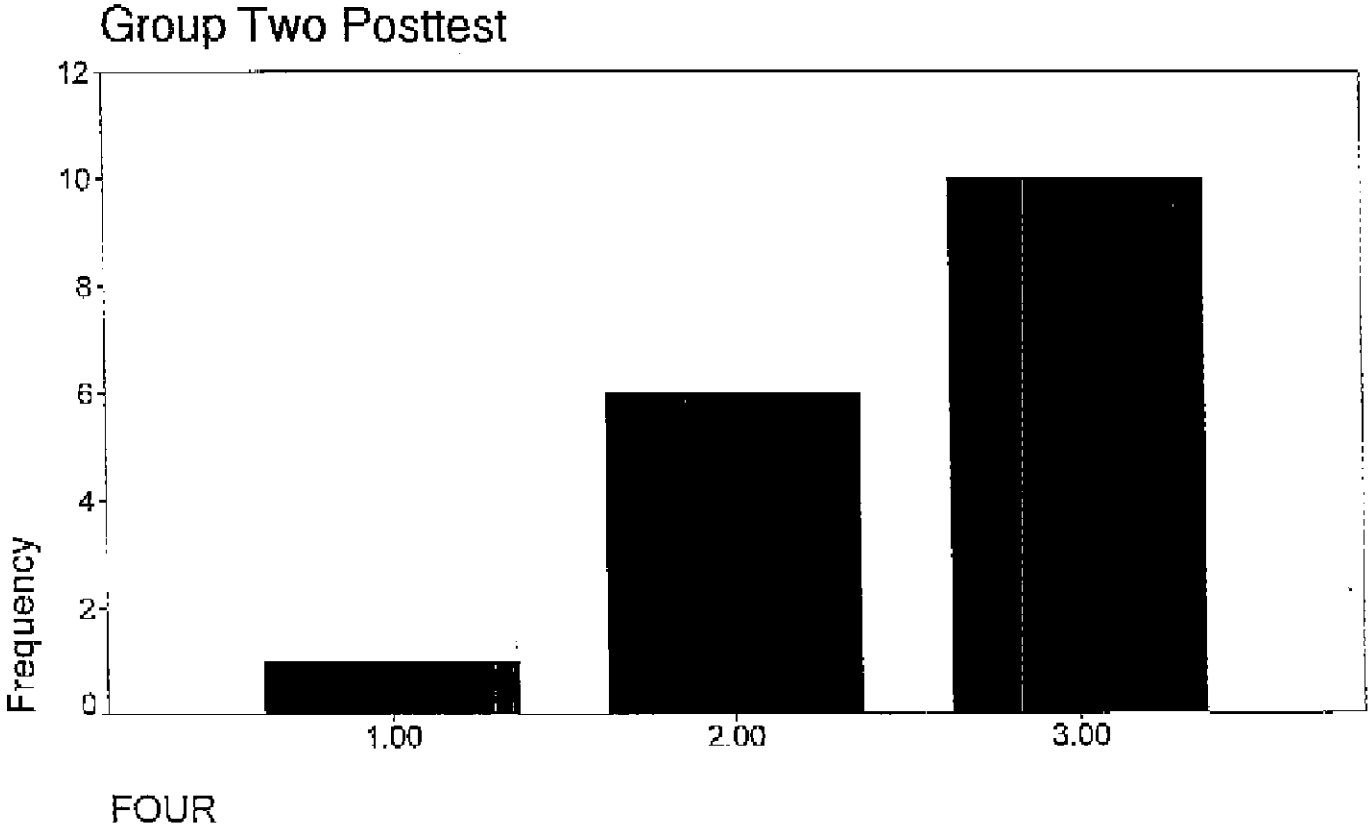
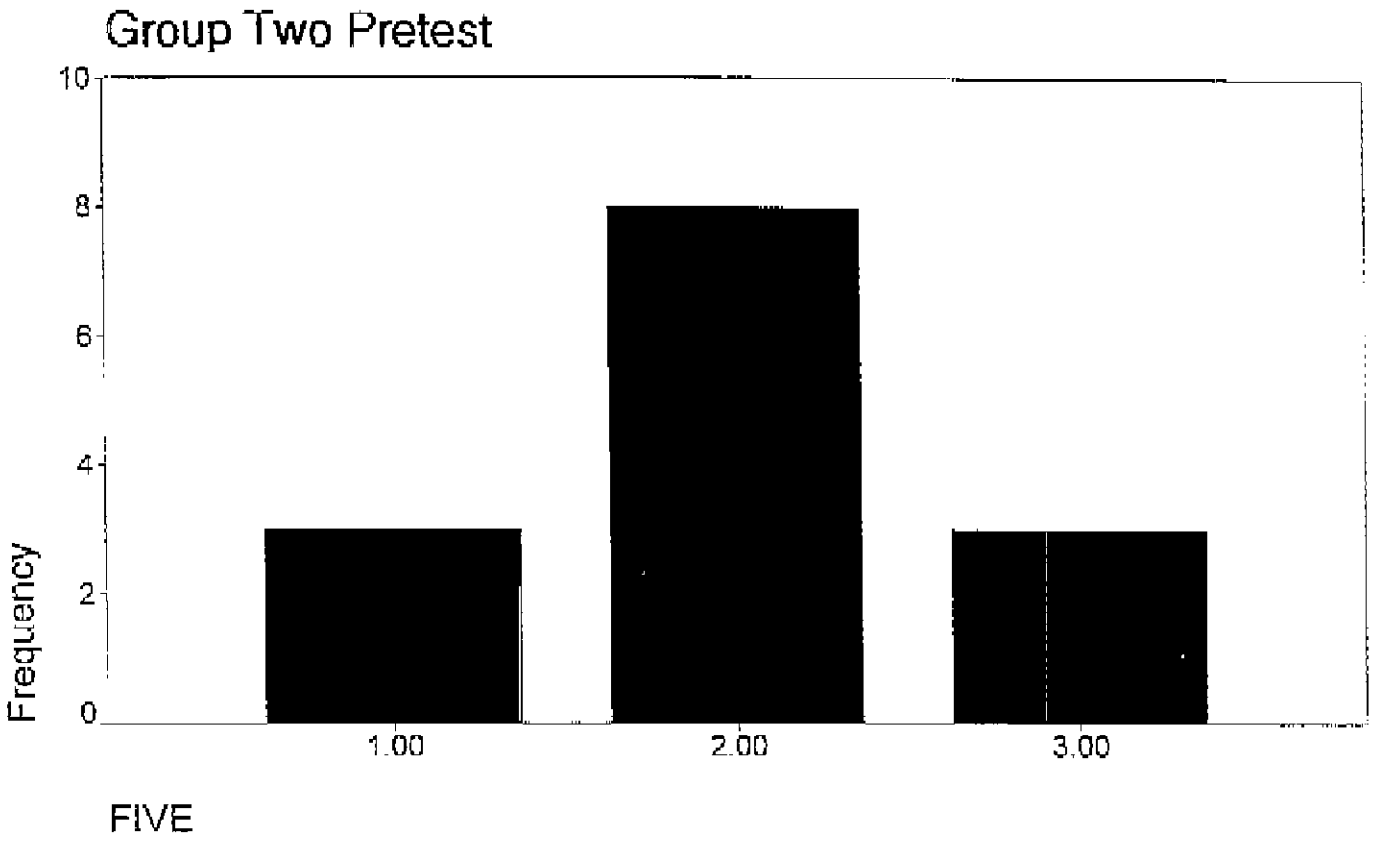

Group Two Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
FOUR

TABLE 2 B


Group Two Pretest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
FIVE

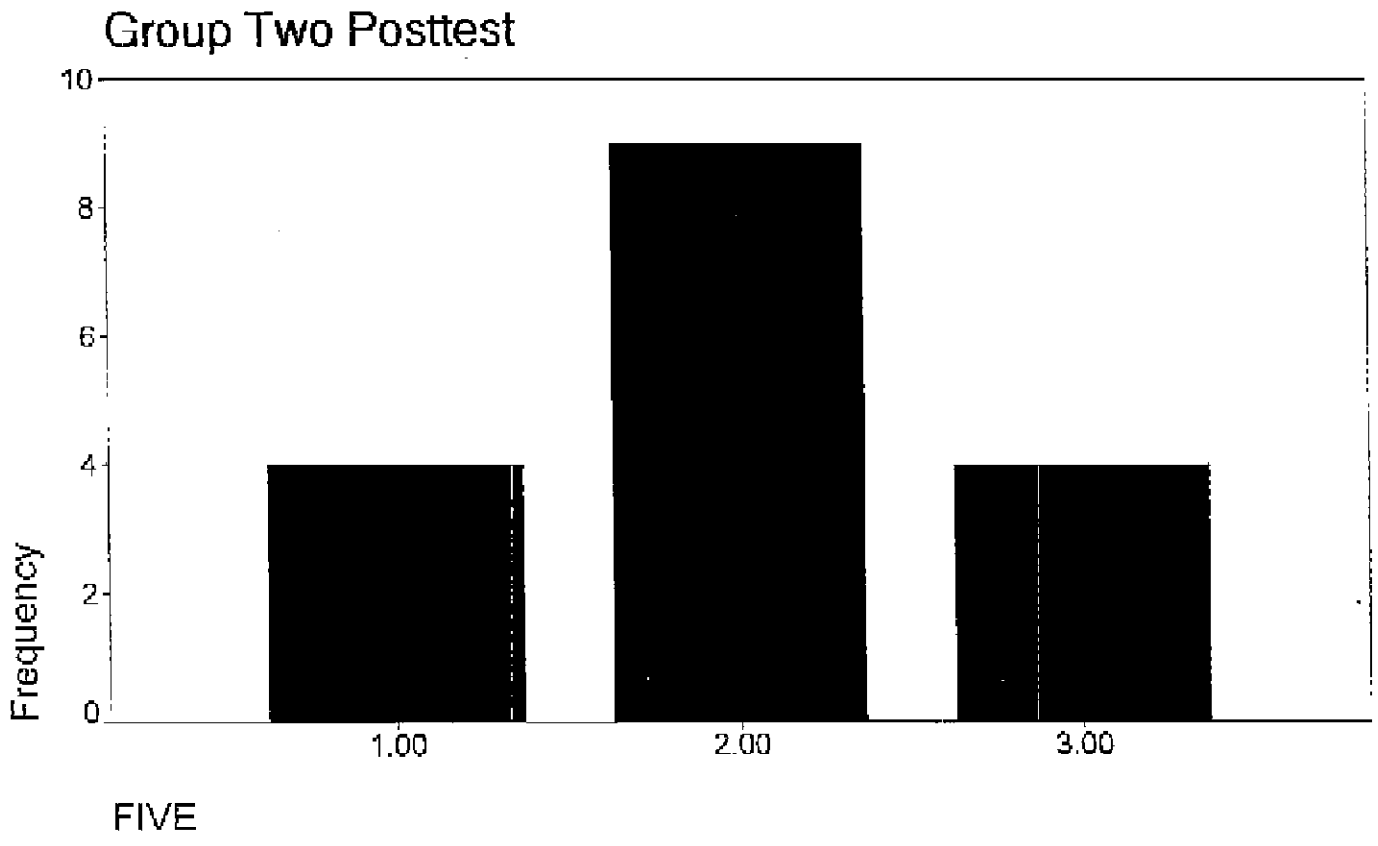
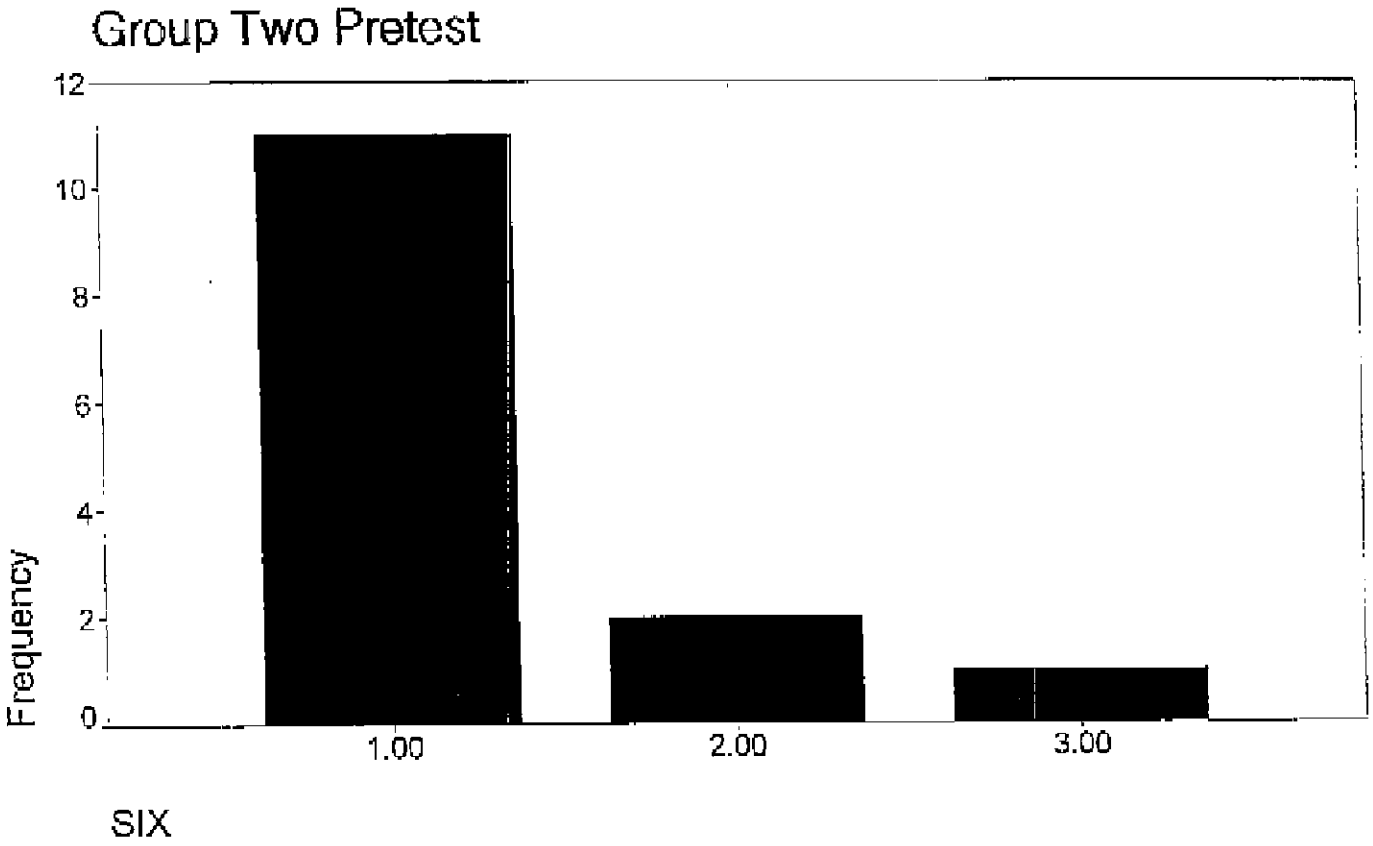

Group Two Posttest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
FIVE

TABLE 2 B


Group Two Pretest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
SIX

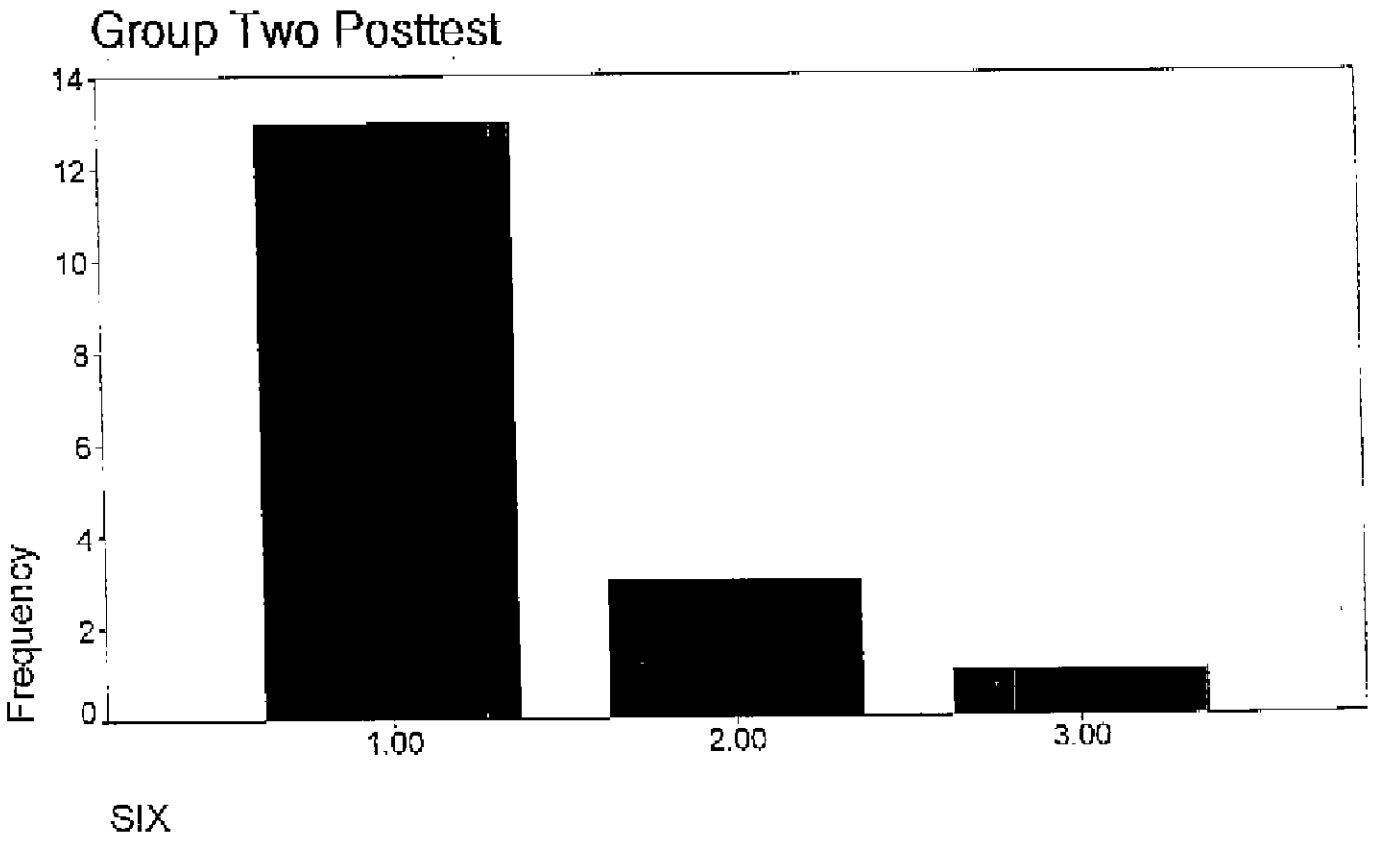
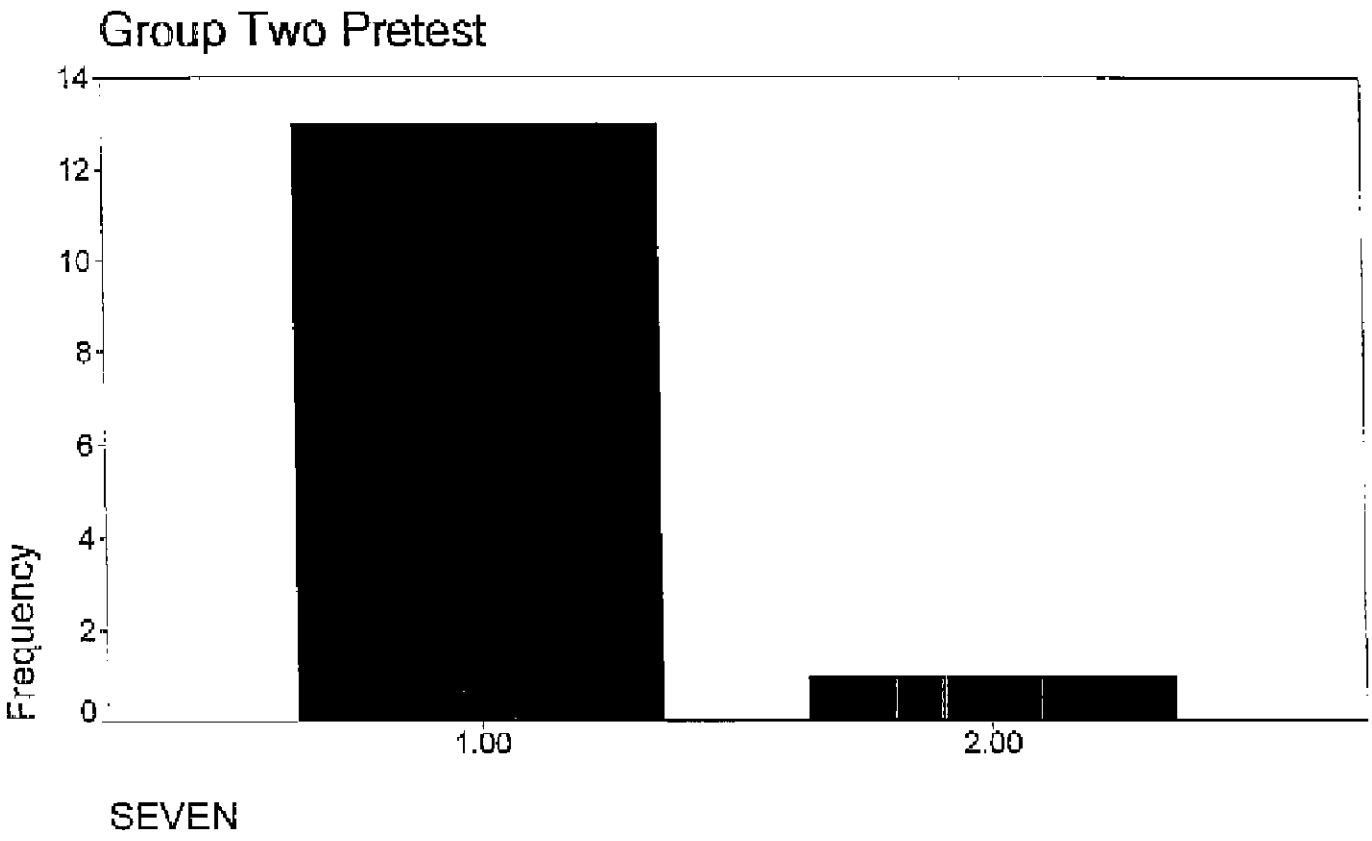

Group Two Posttest
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
SIX

TABLE 2 B


Group Two Pretest
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
SEVEN

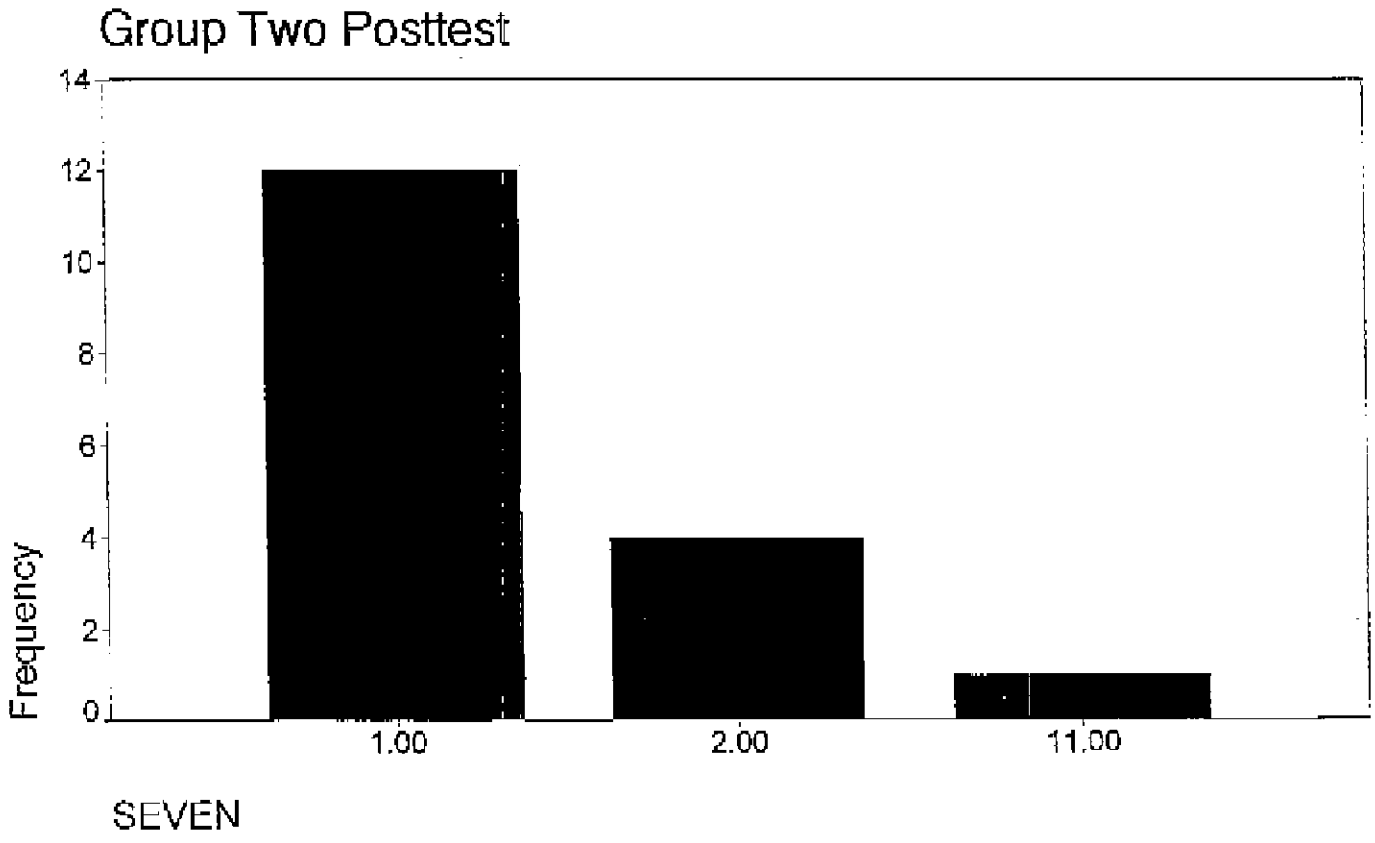
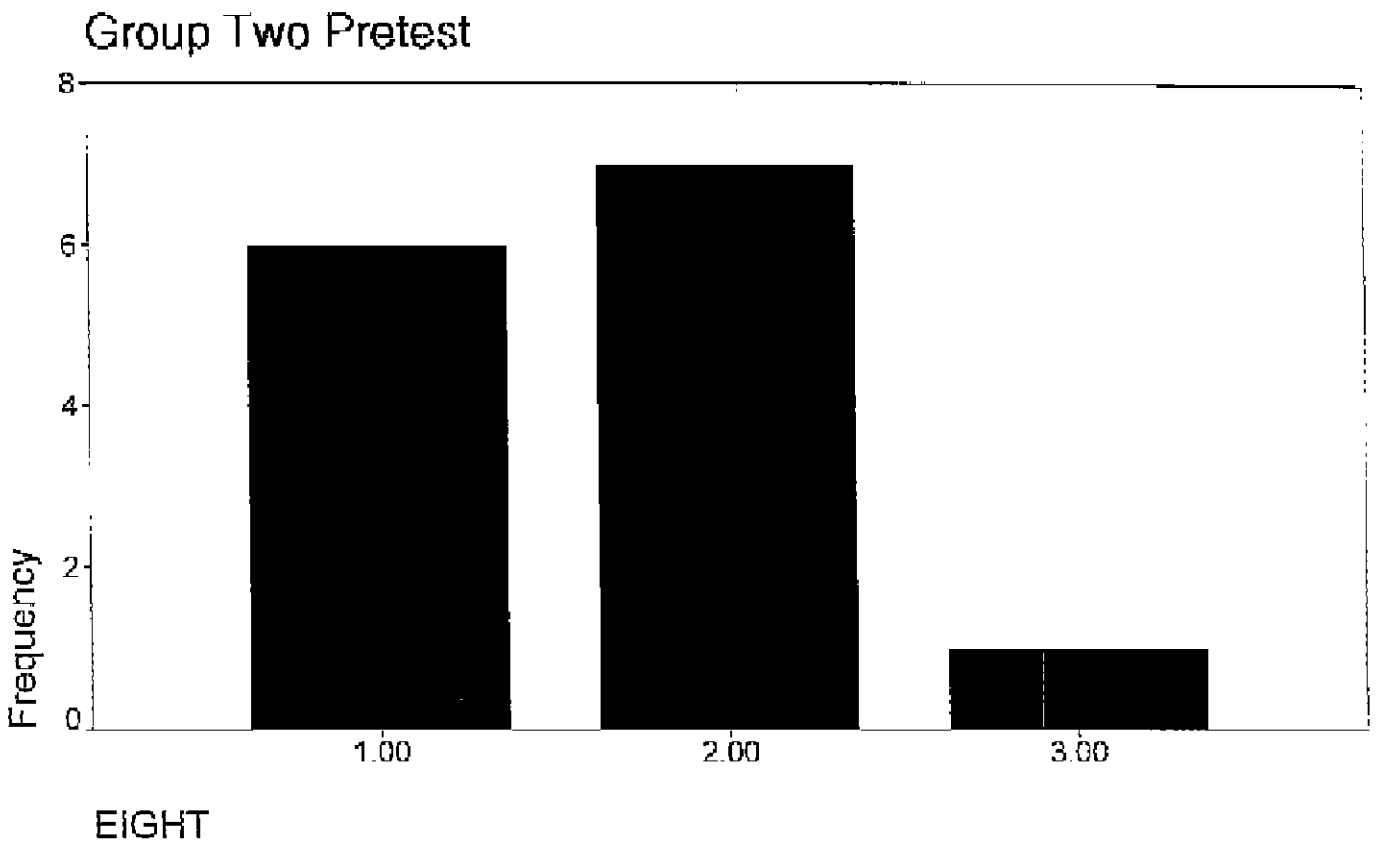

Group Two Posttest
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
11.00
SEVEN

TABLE 2 B


Group Two Pretest
8
6
4
2
0
Frequency
1.00
2.00
3.00
EIGHT

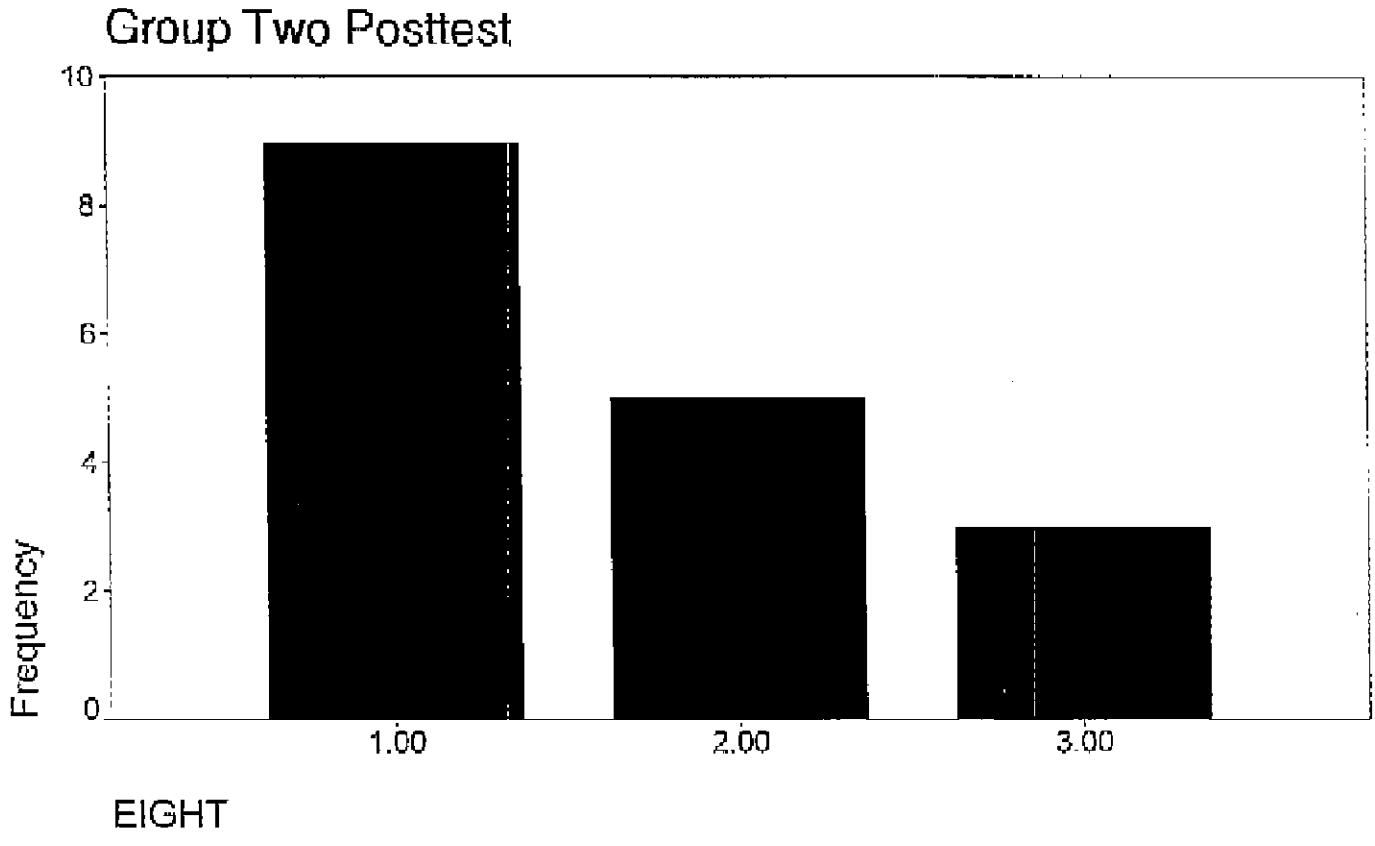
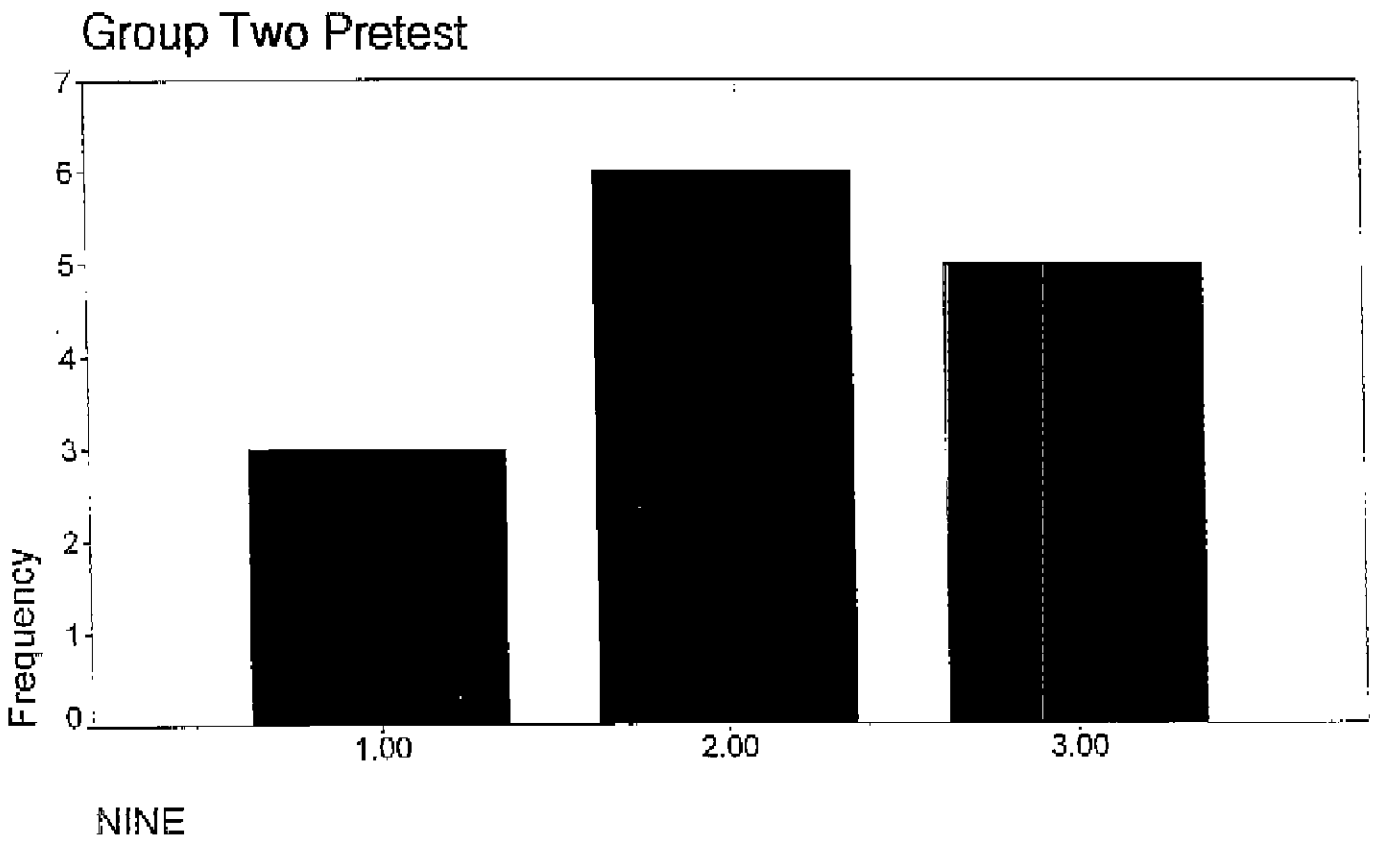

Group Two Posttest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
EIGHT

TABLE 2 B


Group Two Pretest
Frequency
7
6
5
4
3
2
1
0
1.00
2.00
3.00
NINE

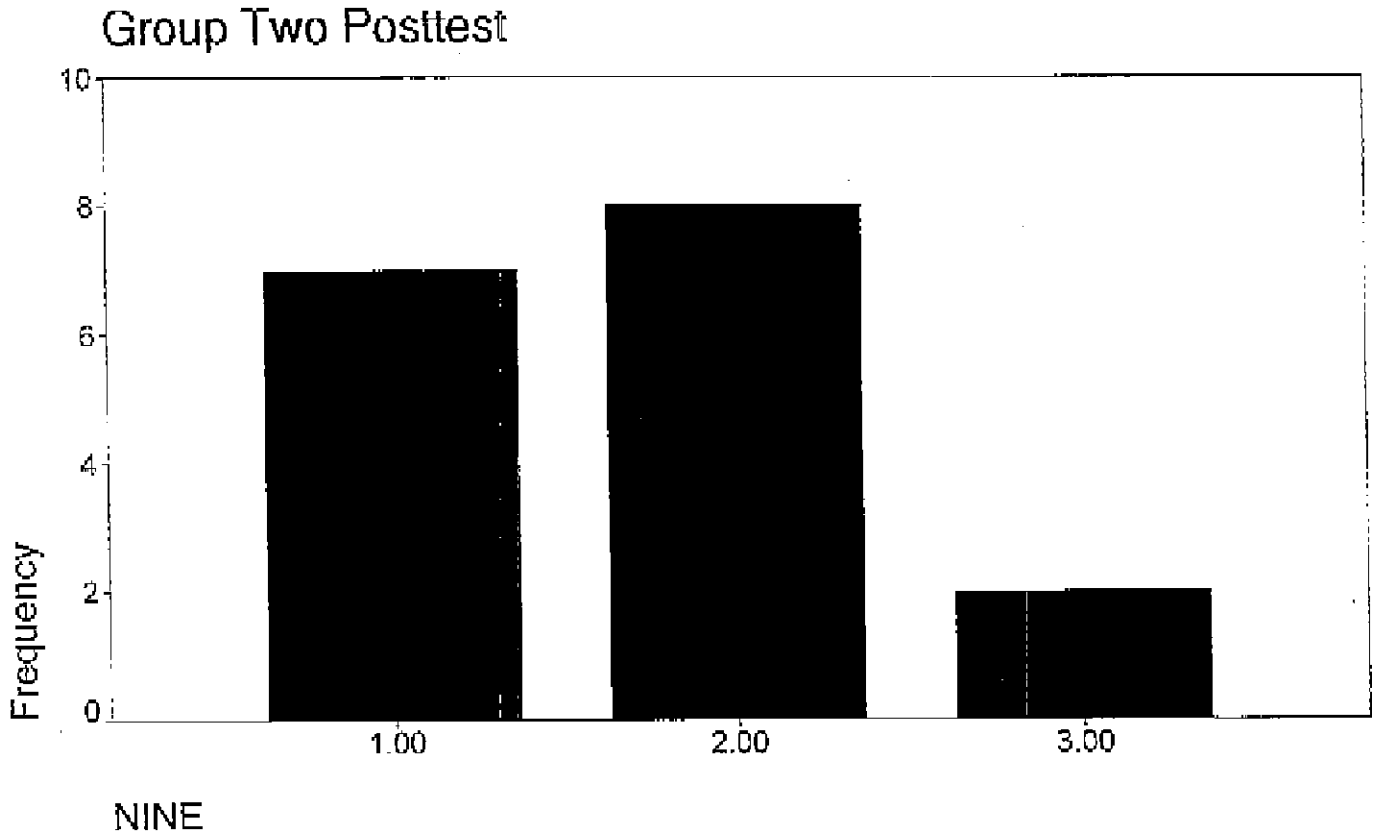
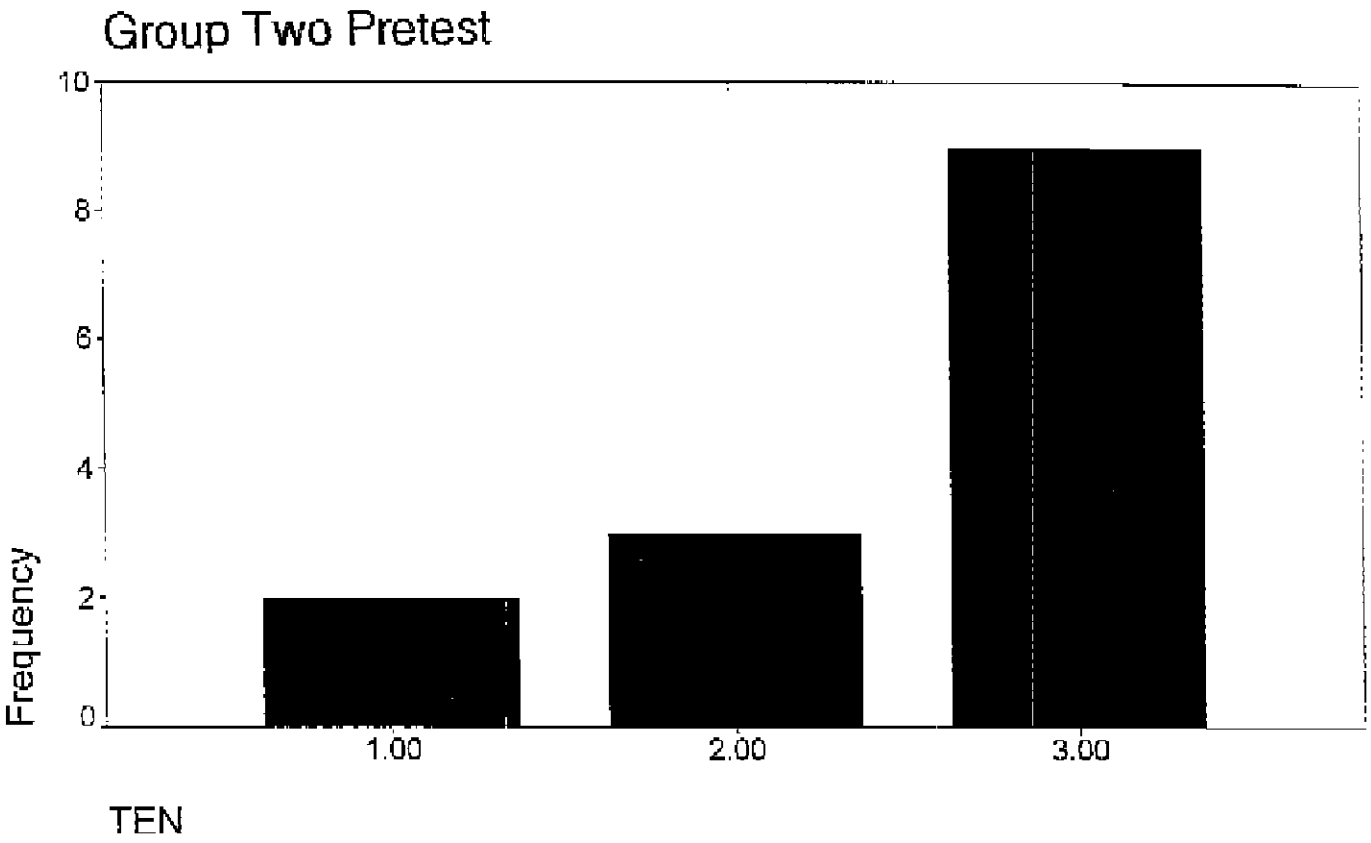

Group Two Posttest
Frequency
10
8
6
4
2
0
1.00
2.00
3.00
NINE

TABLE 2 B


Group Two Pretest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
TEN

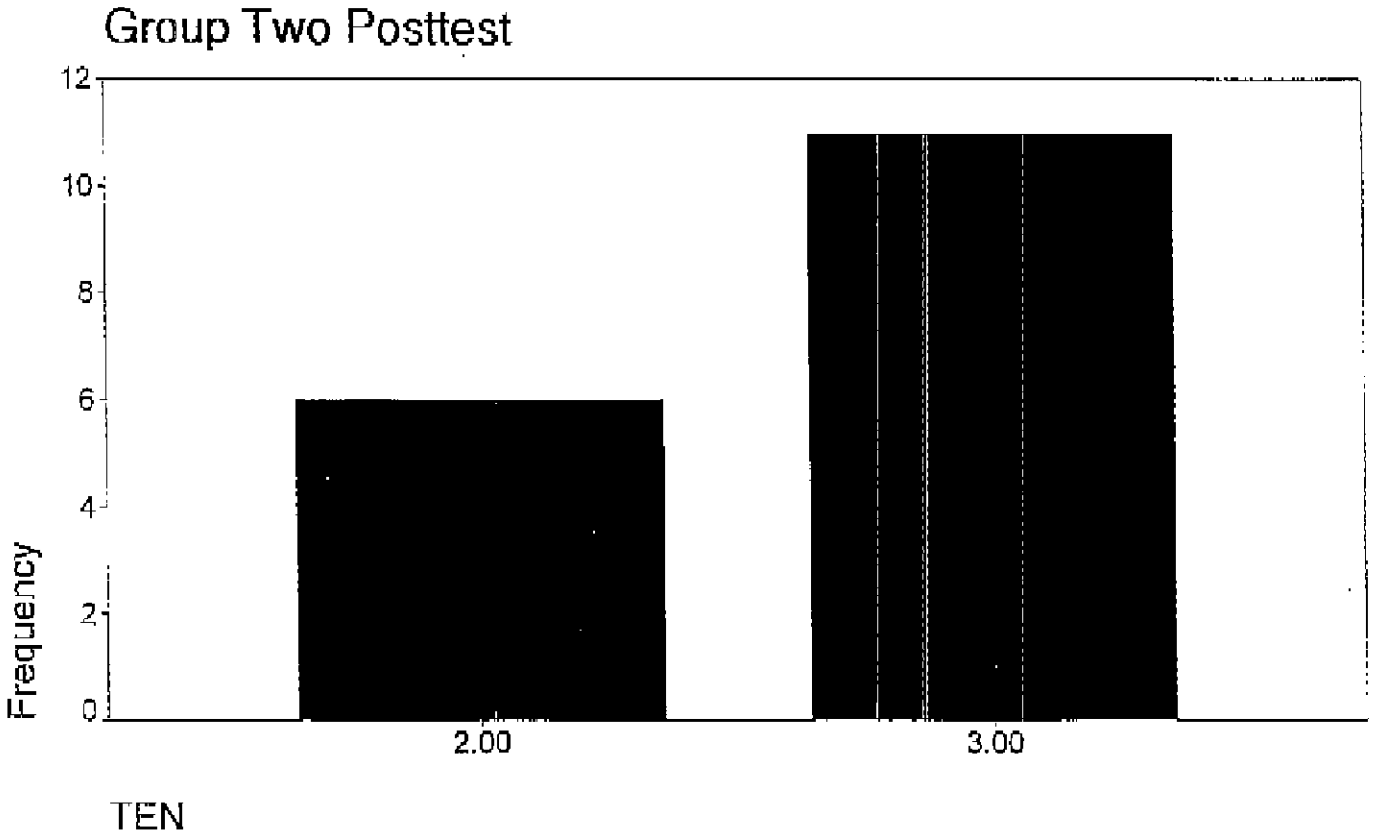
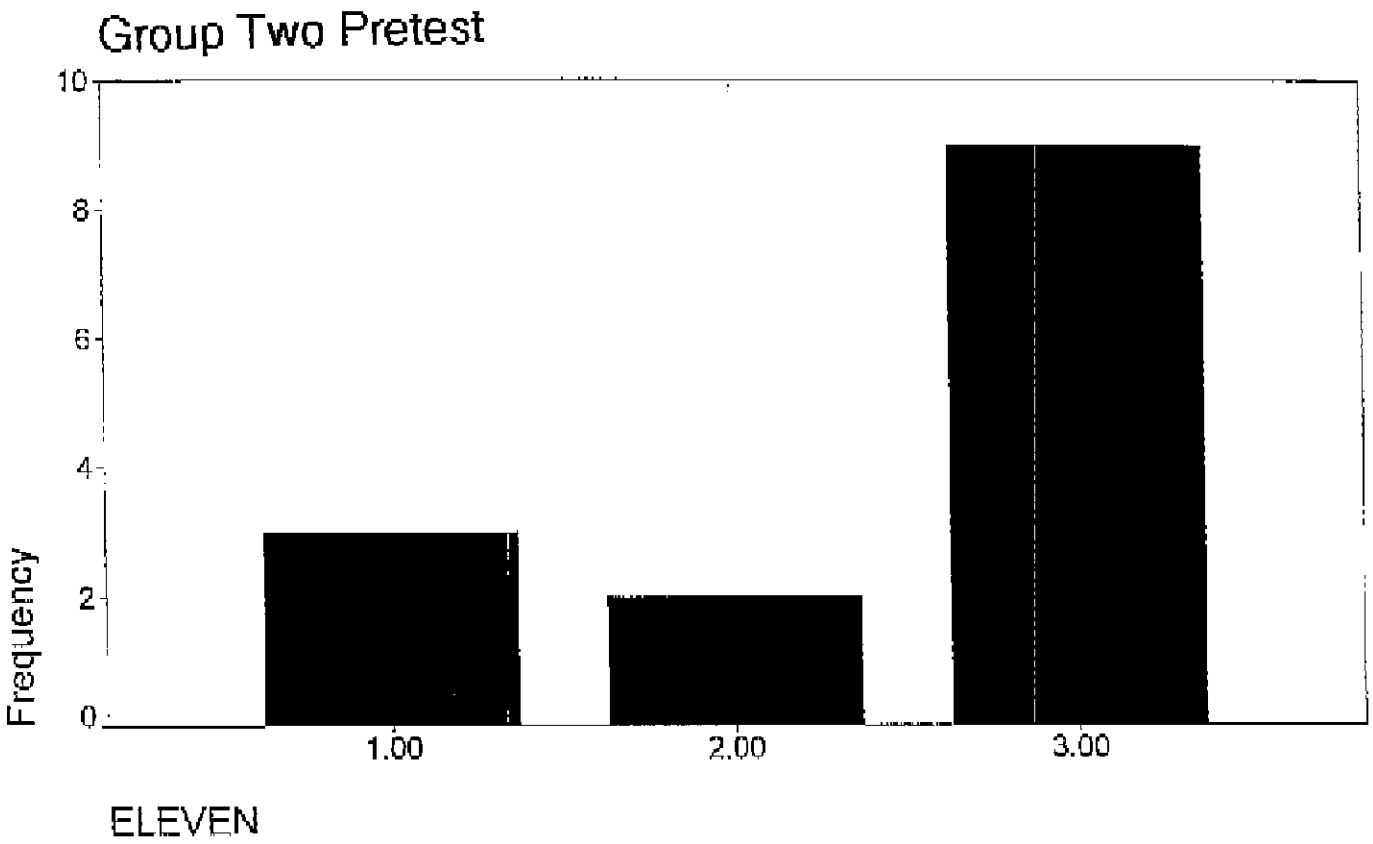

Group Two Posttest
12
10
8
6
4
2
0
Frequency
2.00
3.00
TEN

TABLE 2 B


Group Two Pretest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
ELEVEN

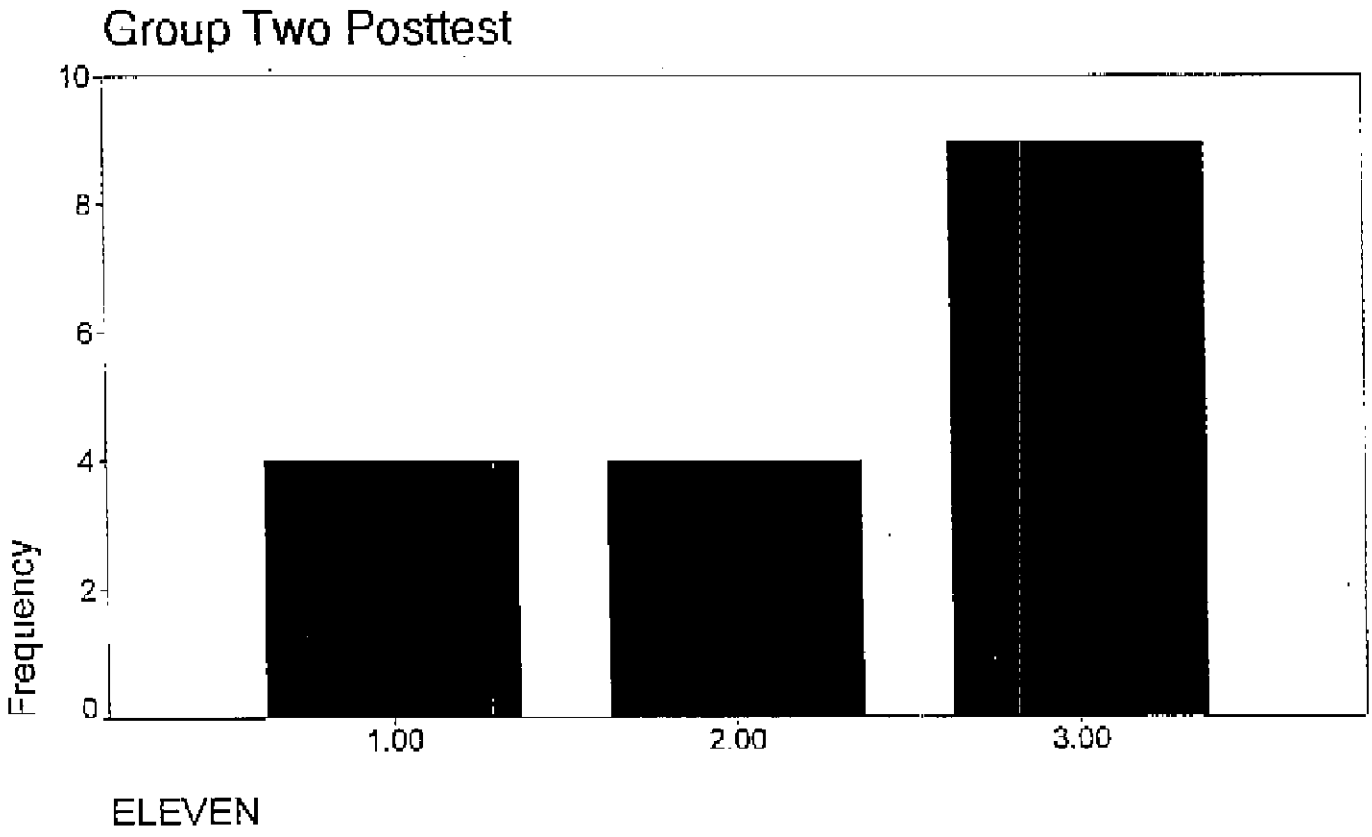
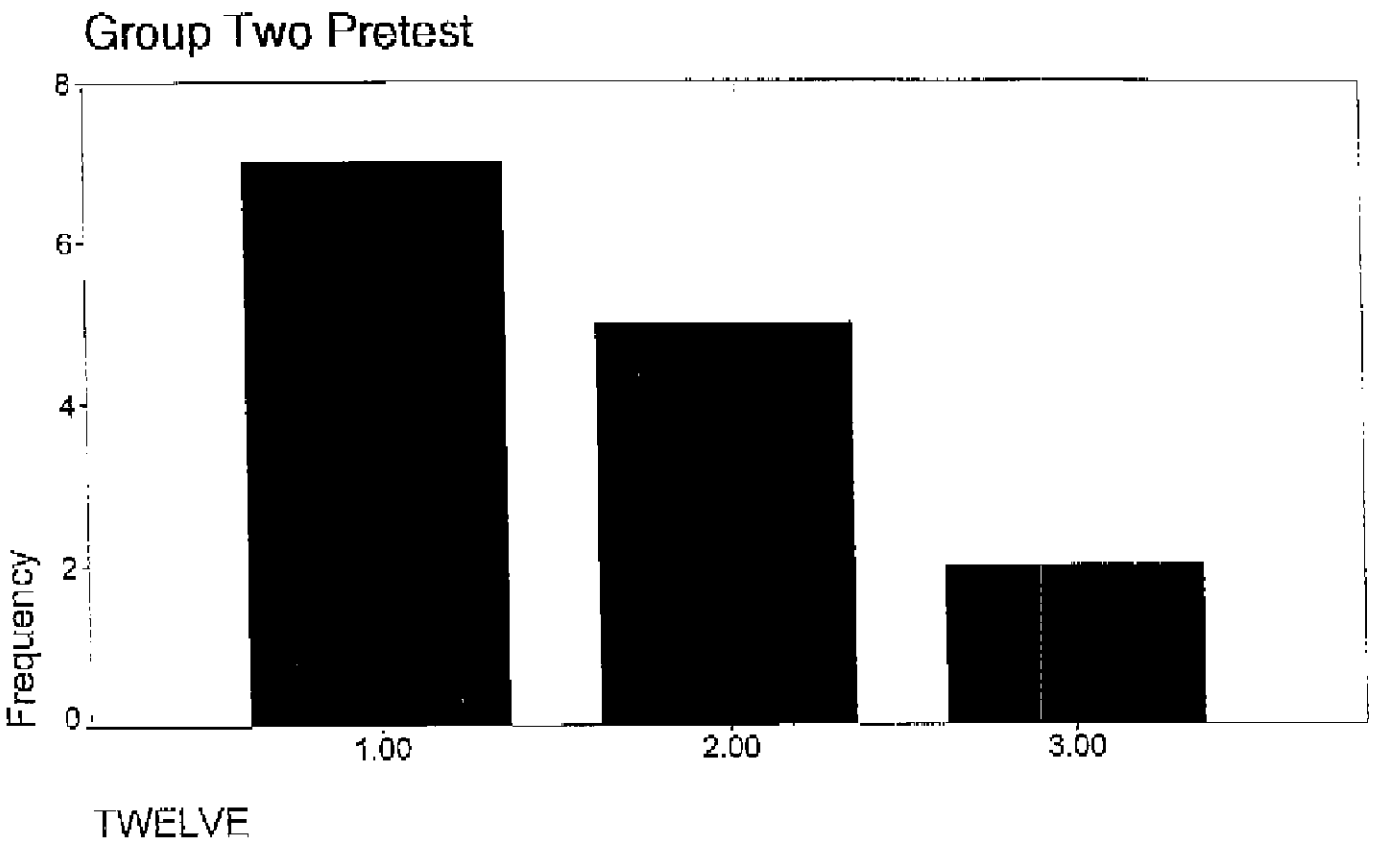

Group Two Posttest
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
ELEVEN

TABLE 2 B


Group Two Pretest
8
6
4
2
0
Frequency
1.00
2.00
3.00
TWELVE

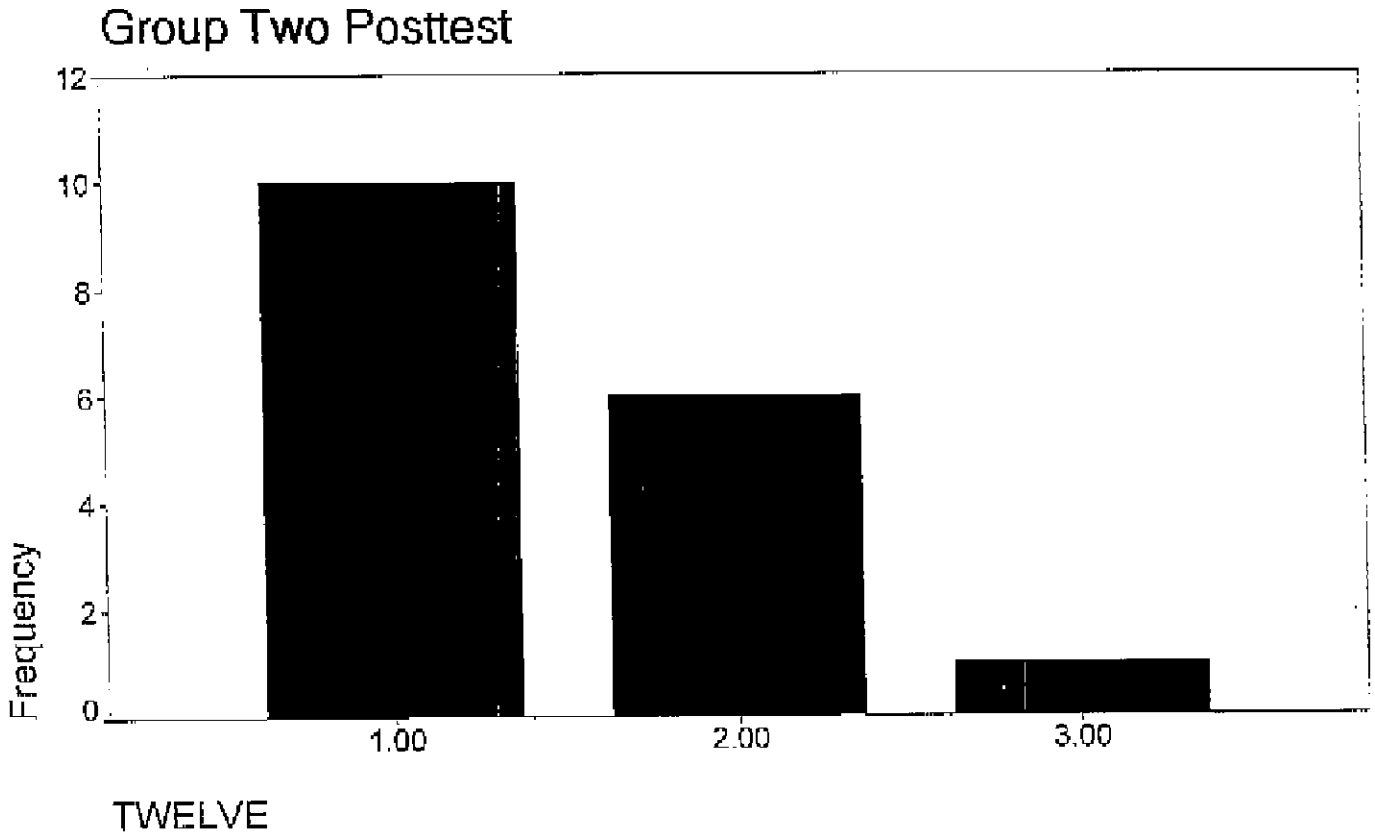
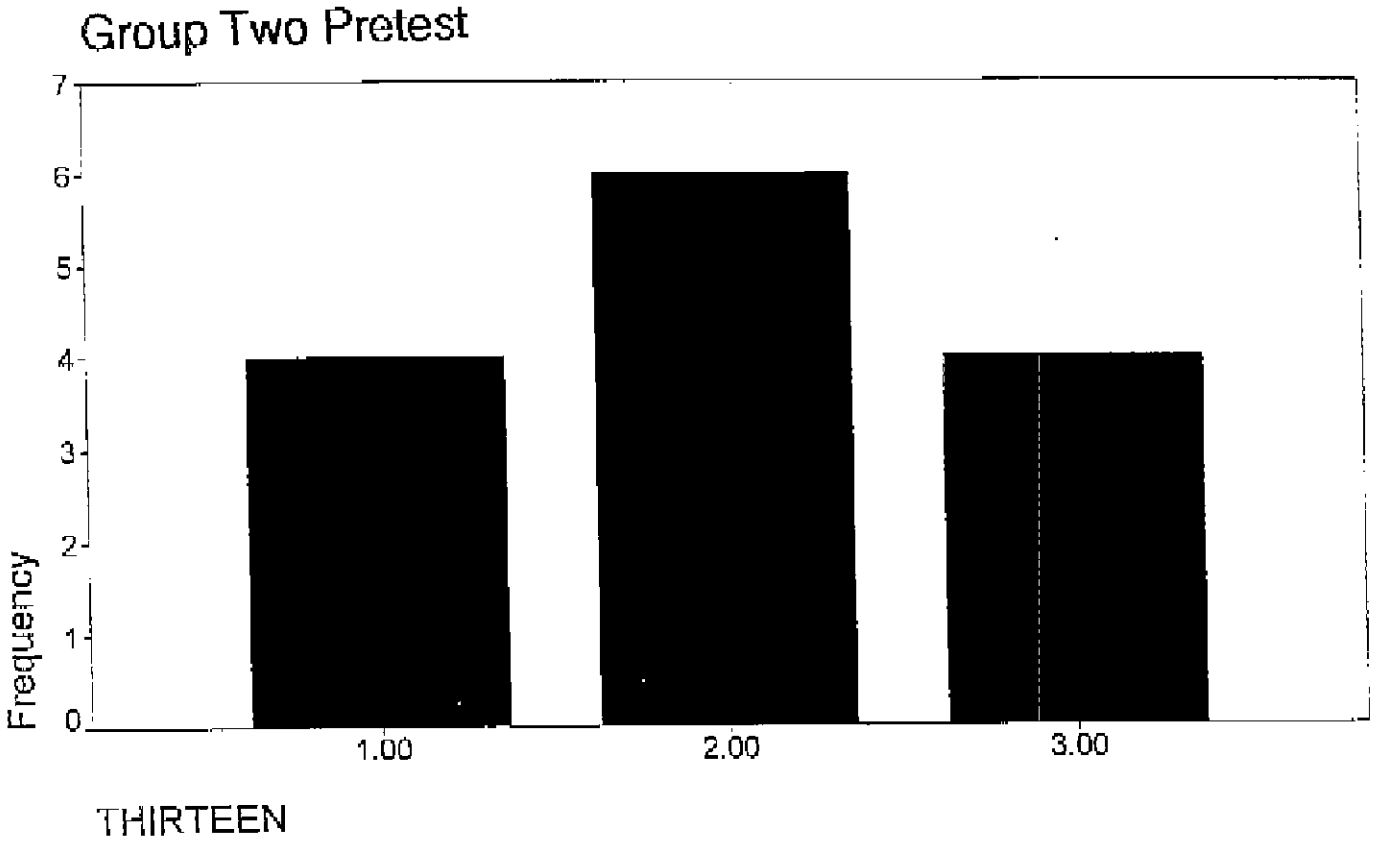

Group Two Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
TWELVE

TABLE 2 B


Group Two Pretest
Frequency
7
6
5
4
3
2
1
0
1.00
2.00
3.00
THIRTEEN

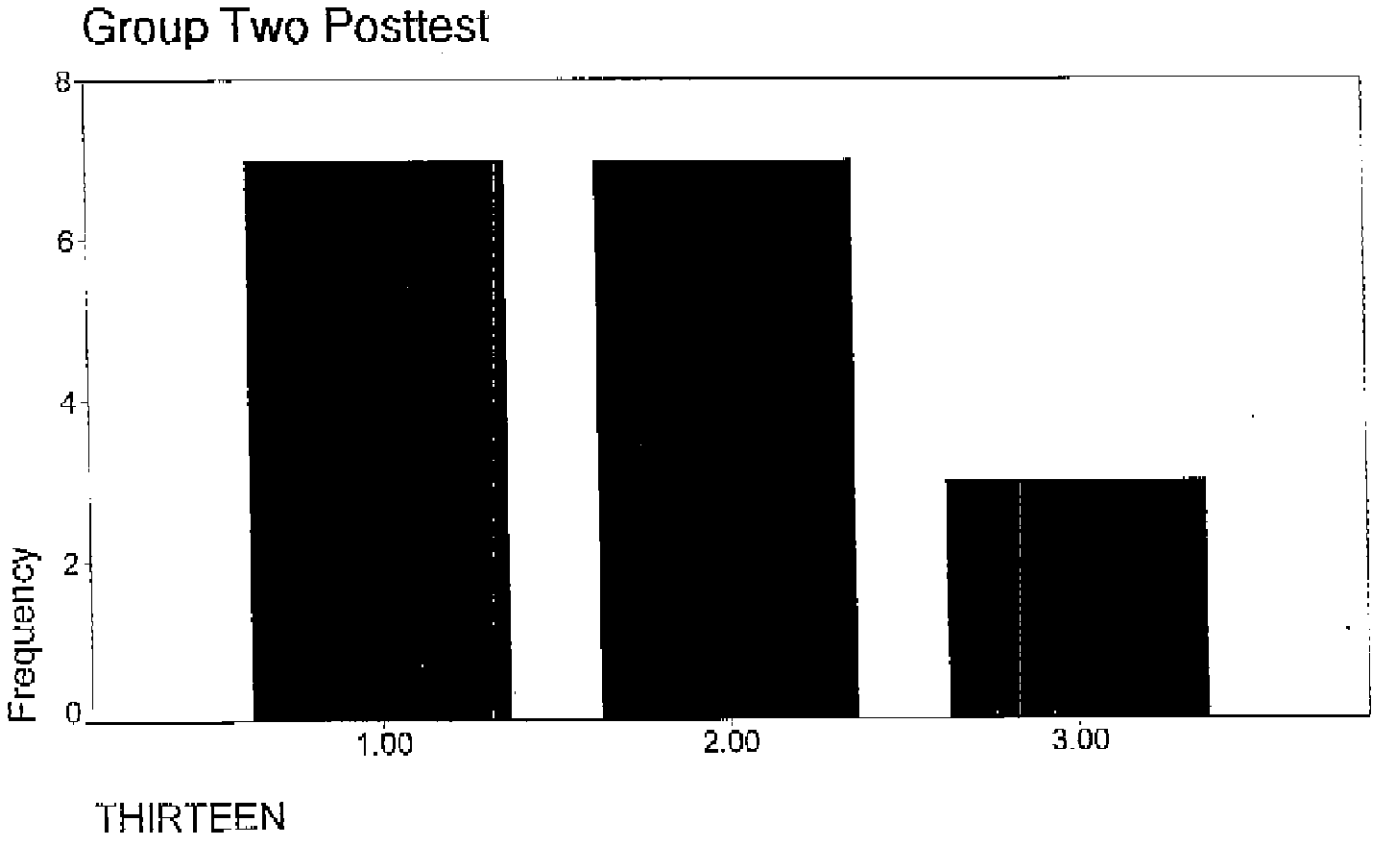
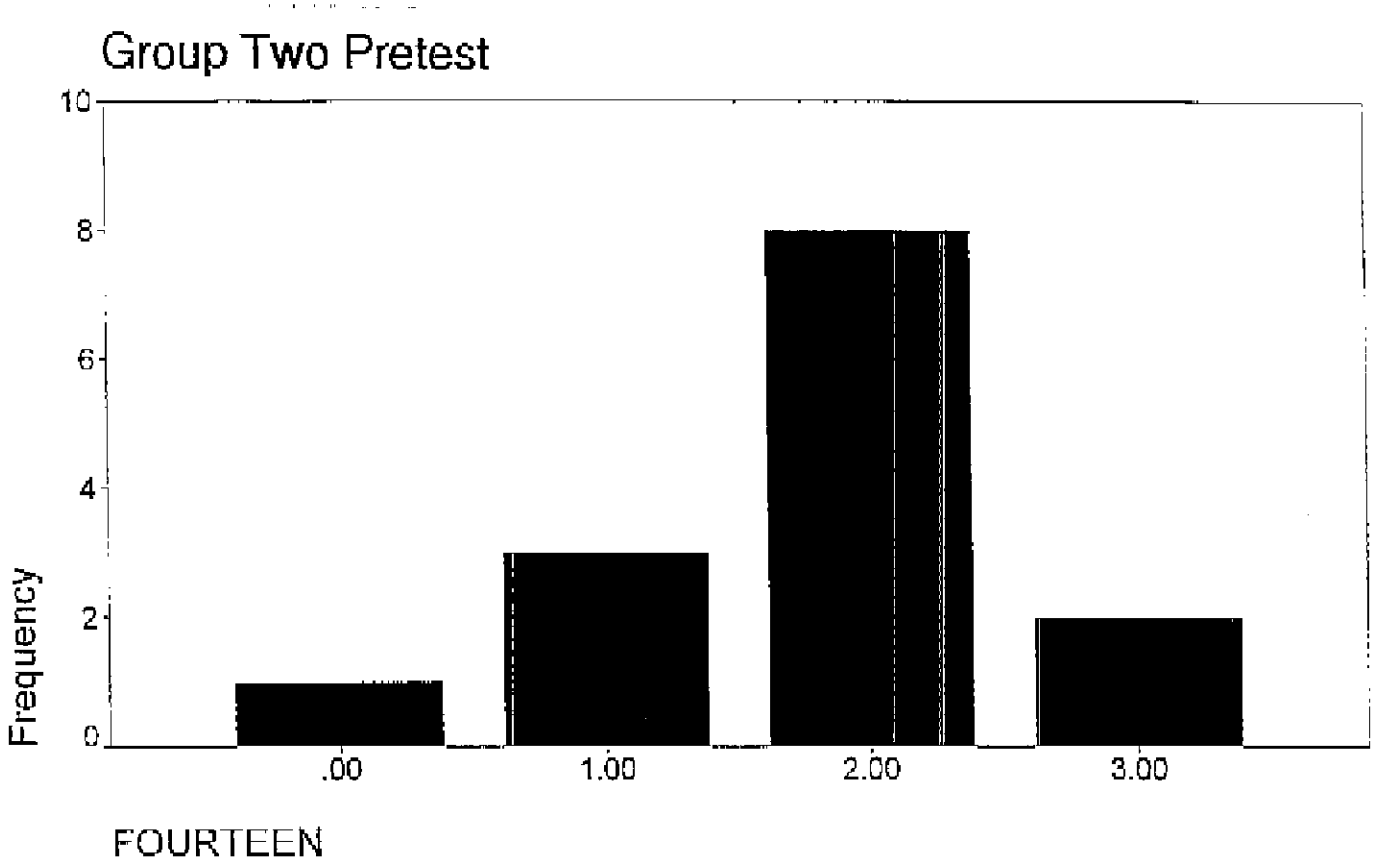

Group Two Posttest
Frequency
8
6
4
2
0
1.00
2.00
3.00
THIRTEEN

TABLE 2 B


Group Two Pretest
10
8
6
4
2
0
Frequency
.00
1.00
2.00
3.00
FOURTEEN

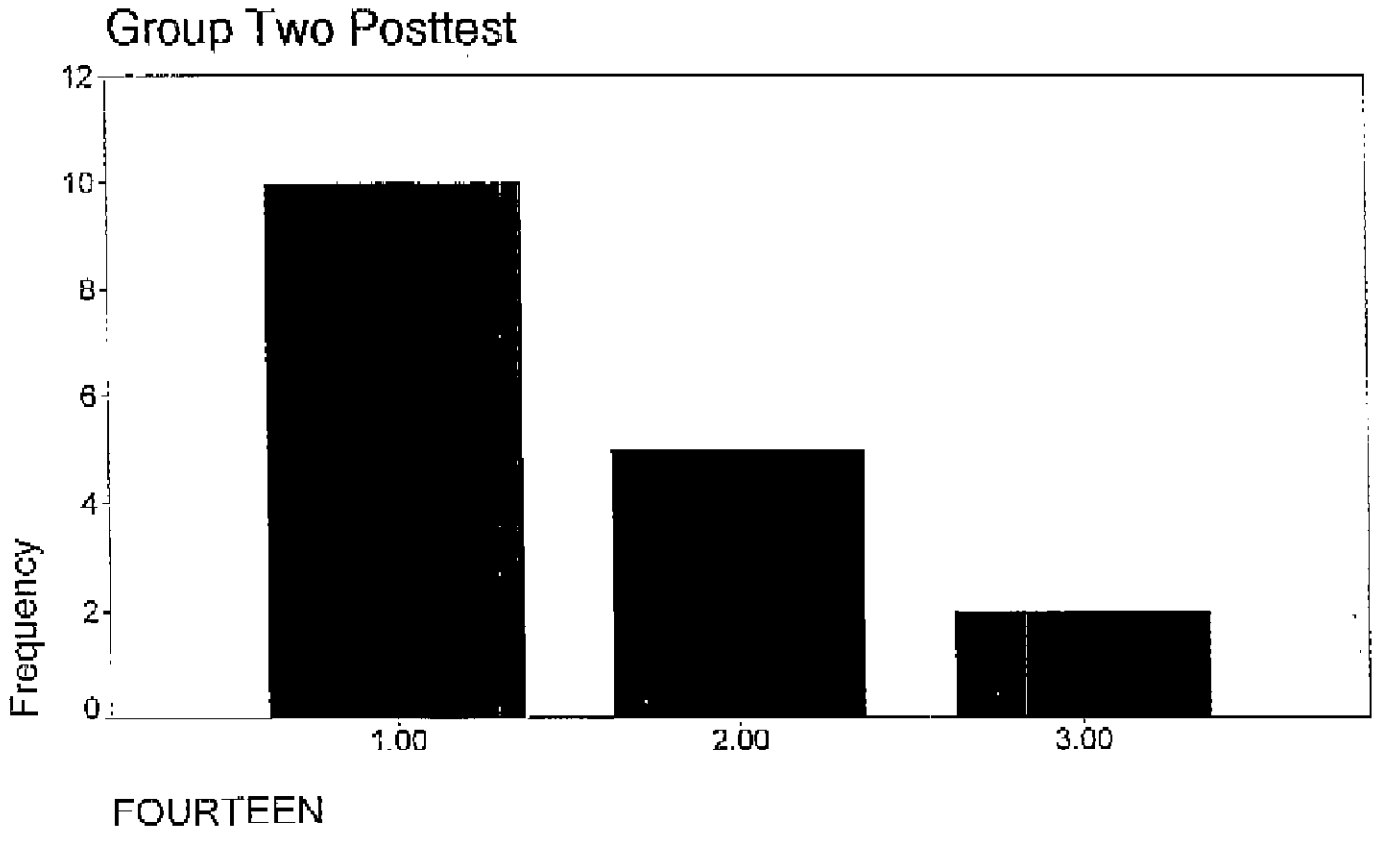
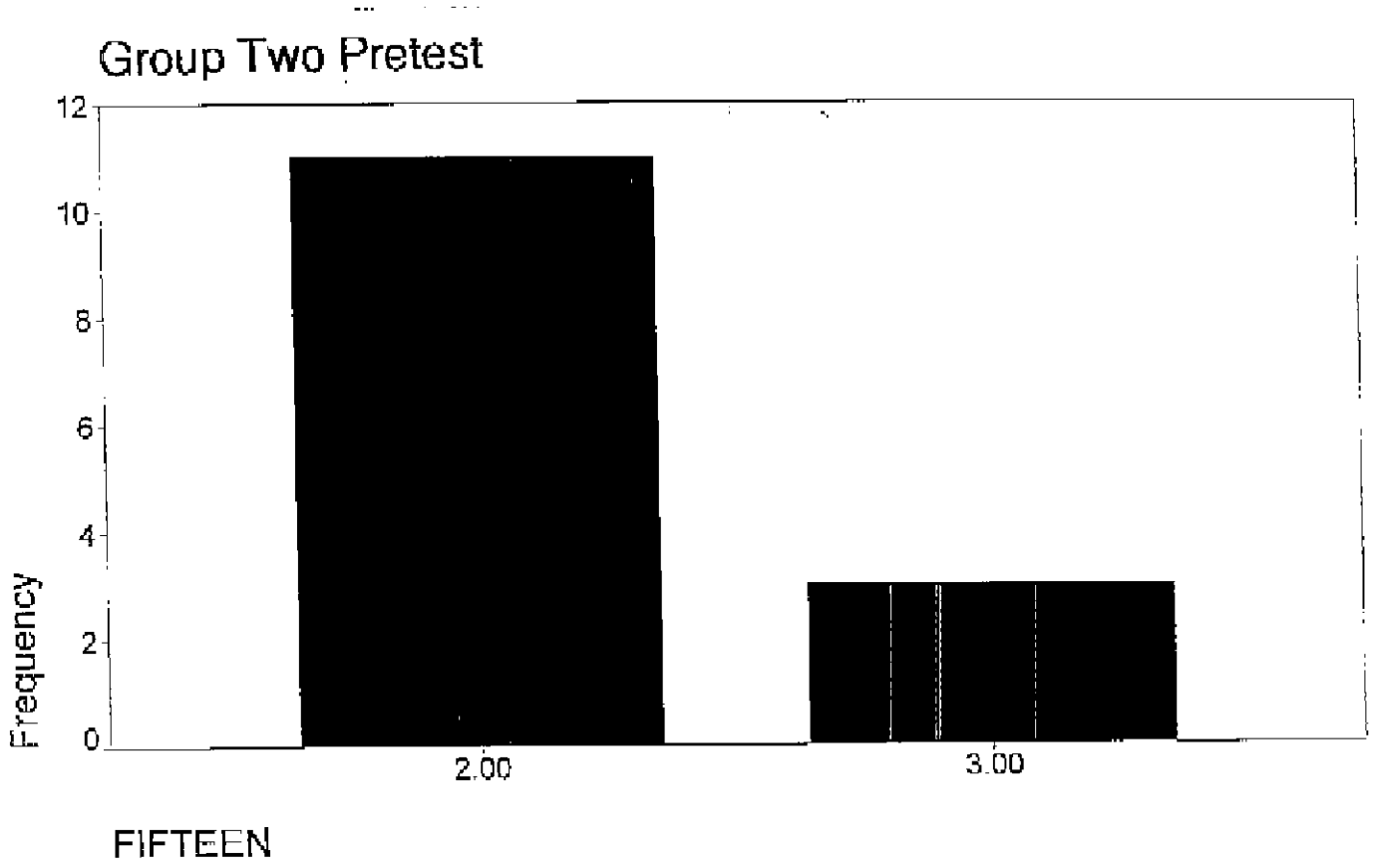

Group Two Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
FOURTEEN

TABLE 2 B


Group Two Pretest
12
10
8
6
4
2
0
Frequency
2.00
3.00
FIFTEEN

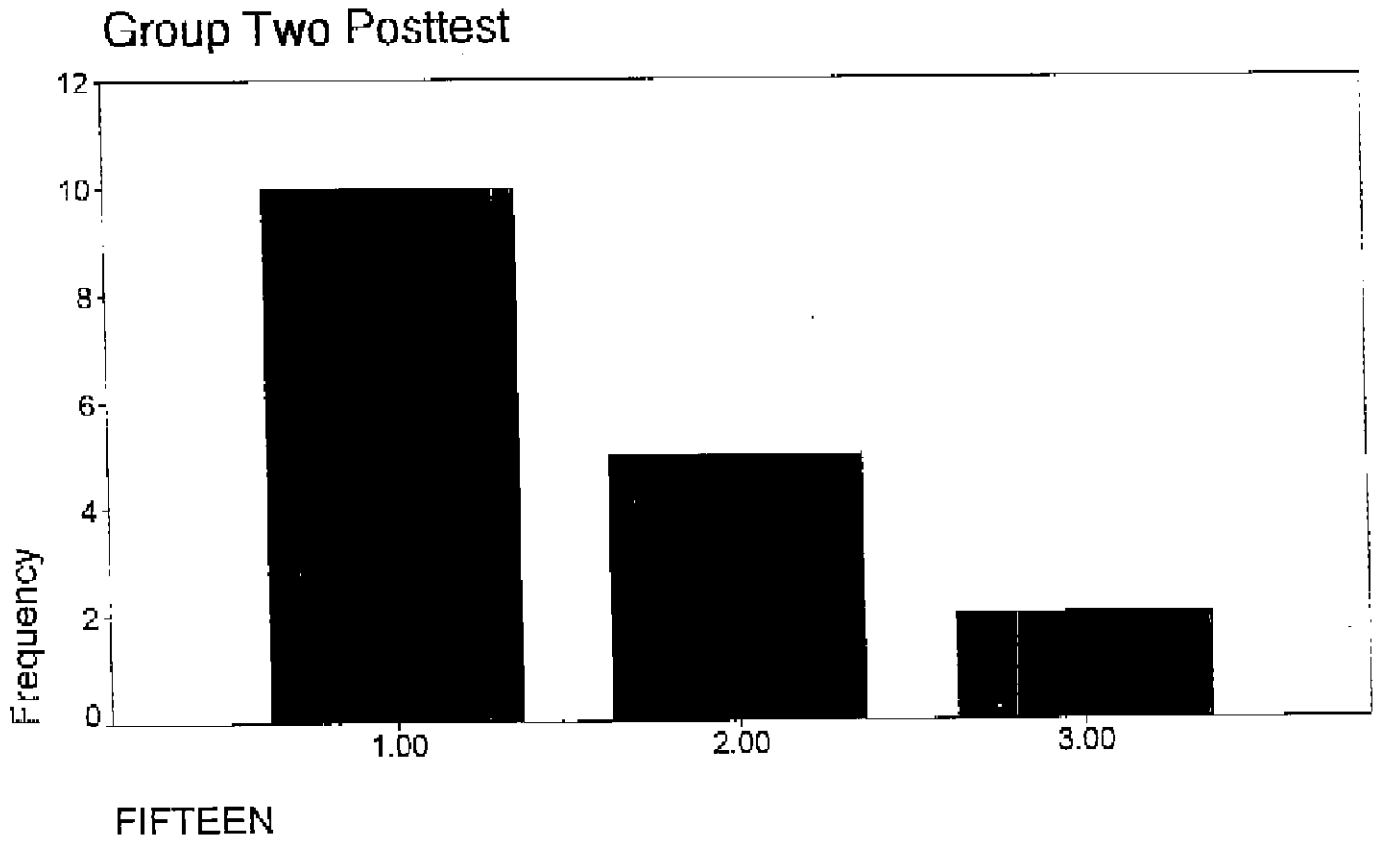
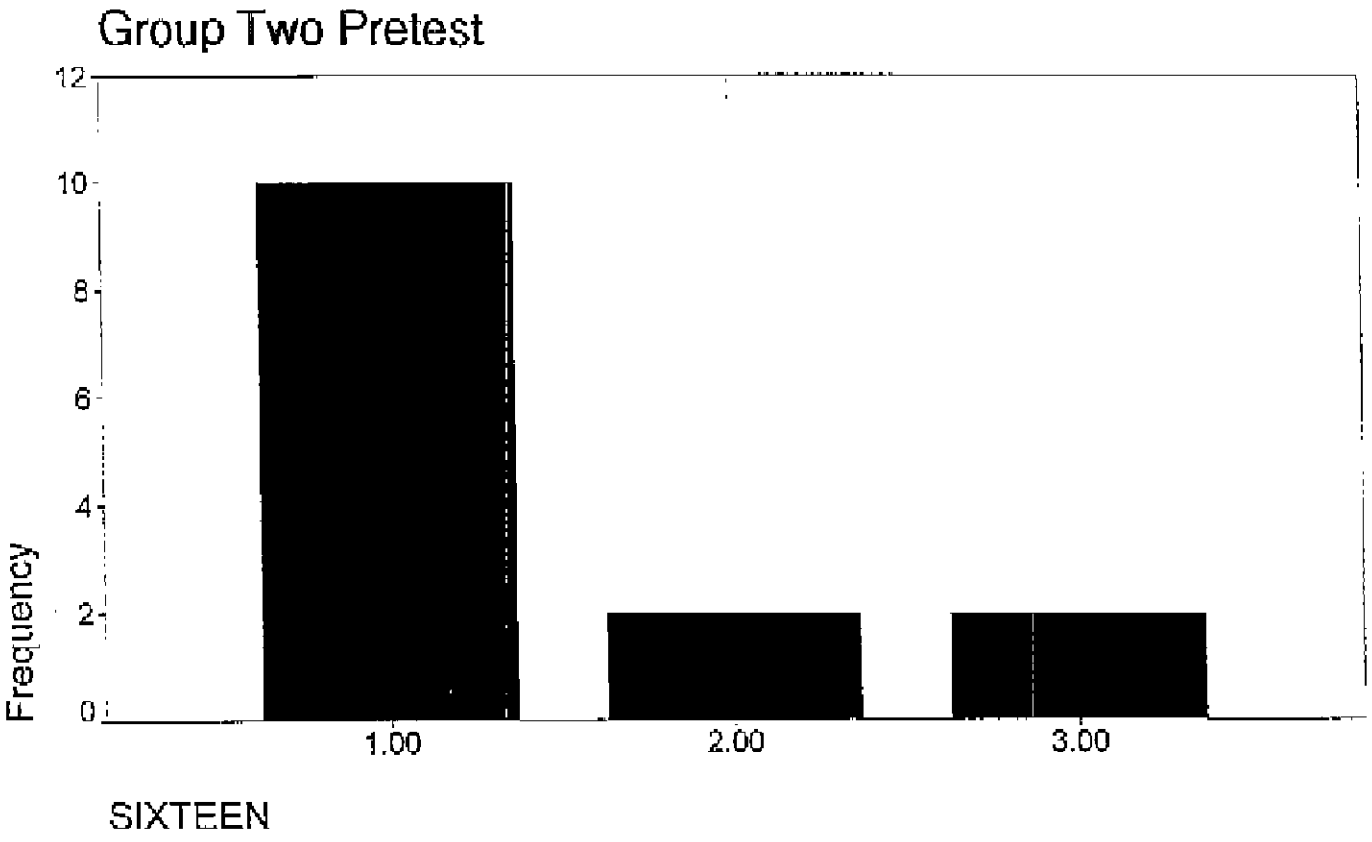

Group Two Posttest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
FIFTEEN

TABLE 2 B


Group Two Pretest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
SIXTEEN

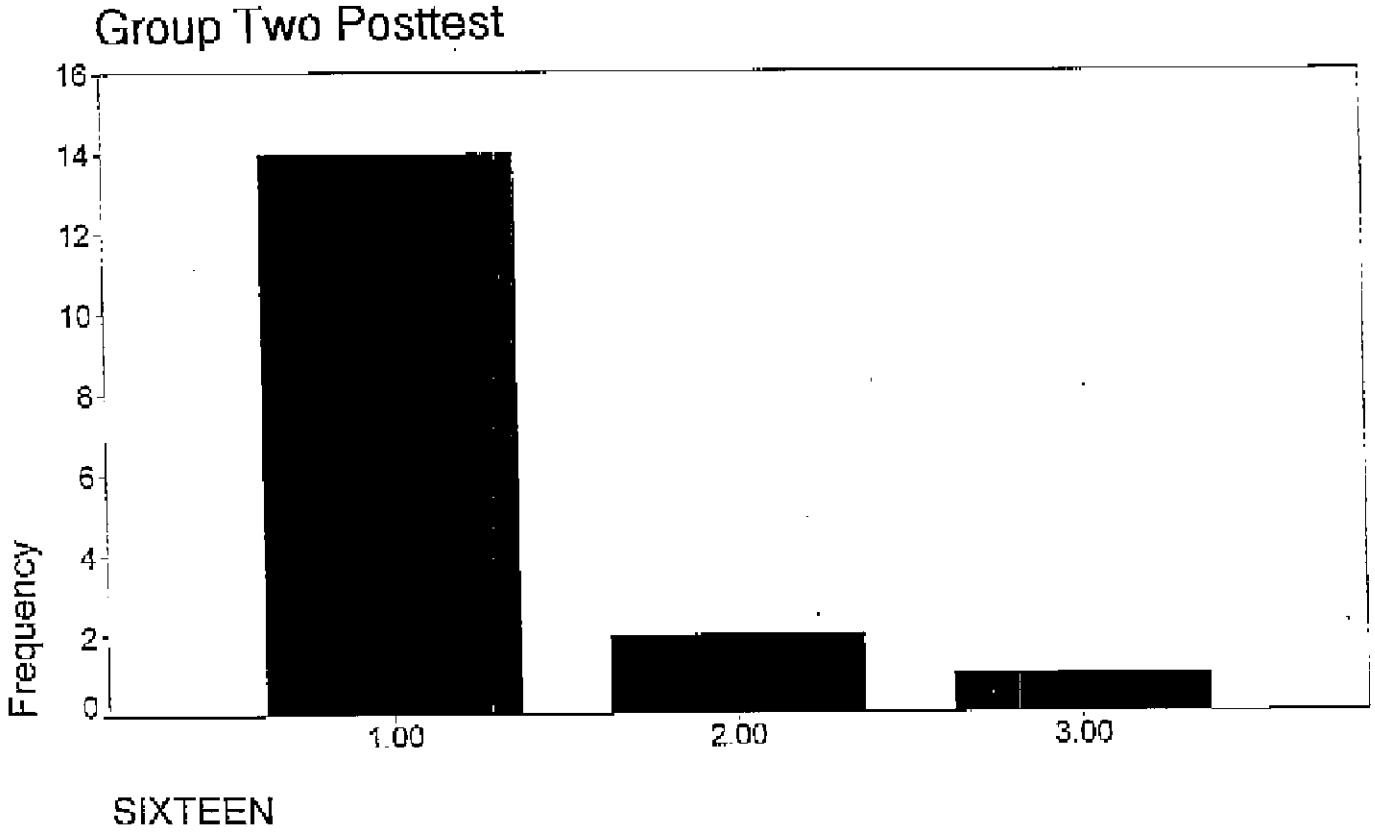
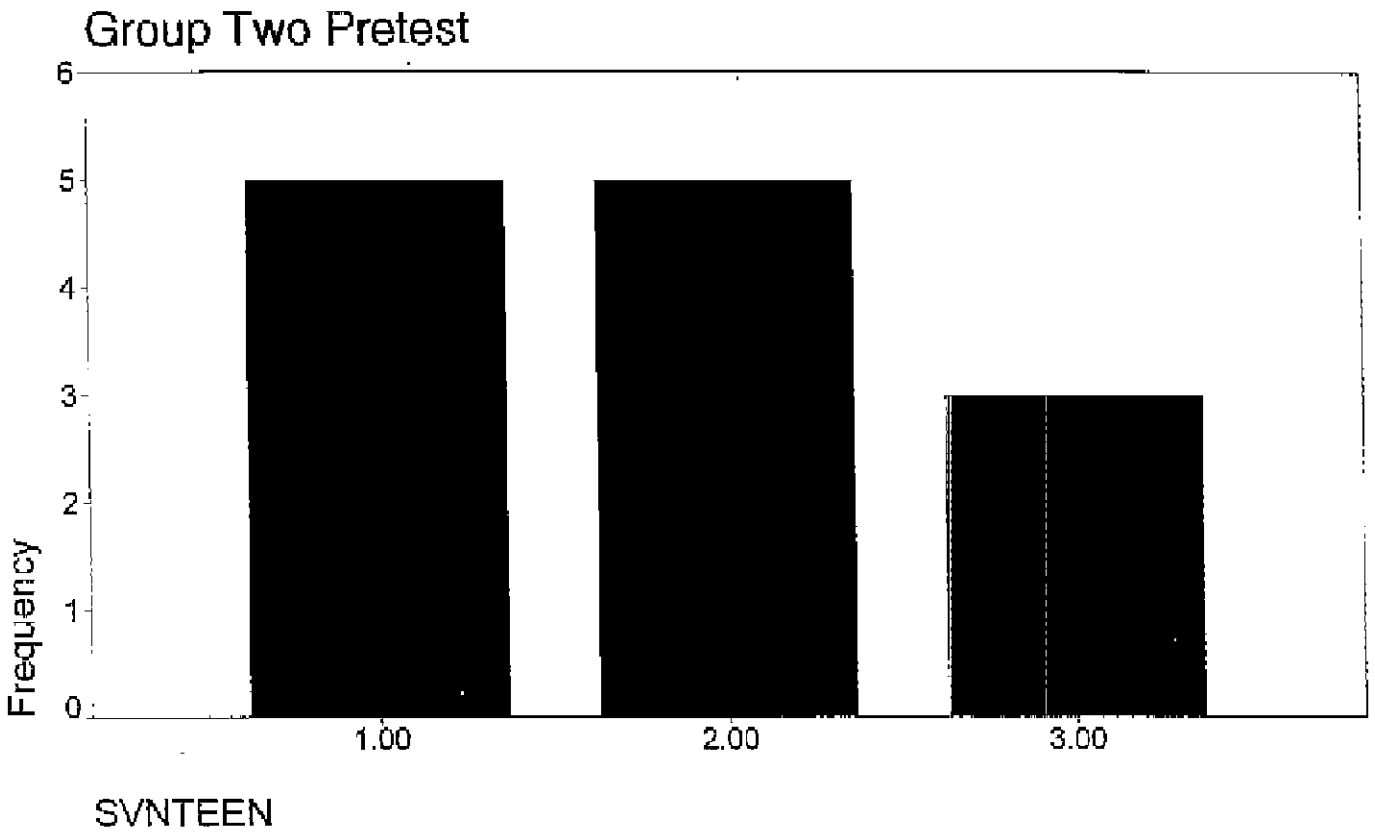

Group Two Posttest
16
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
SIXTEEN

TABLE 2 B


Group Two Pretest
6
5
4
3
2
1
0
Frequency
1.00
2.00
3.00
SVNTEEN

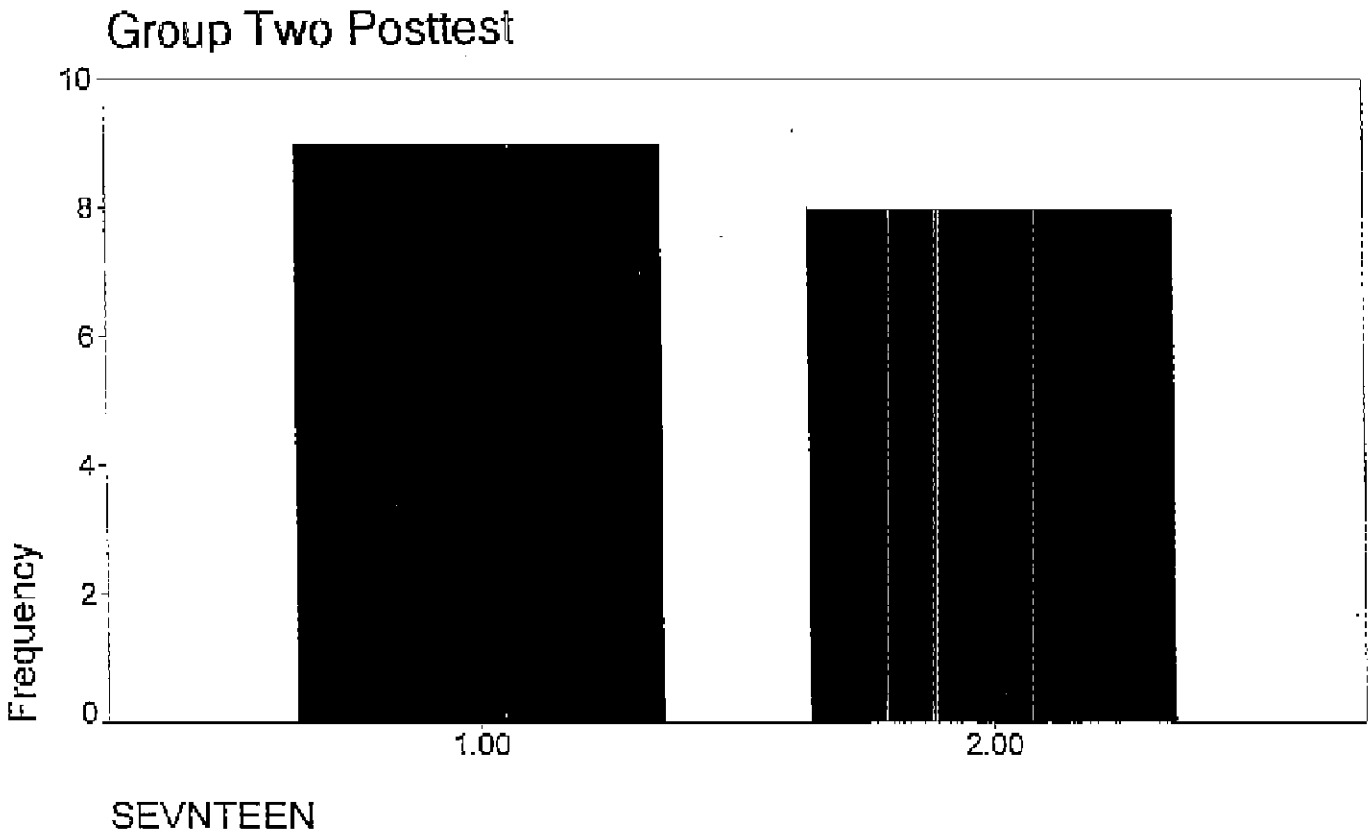
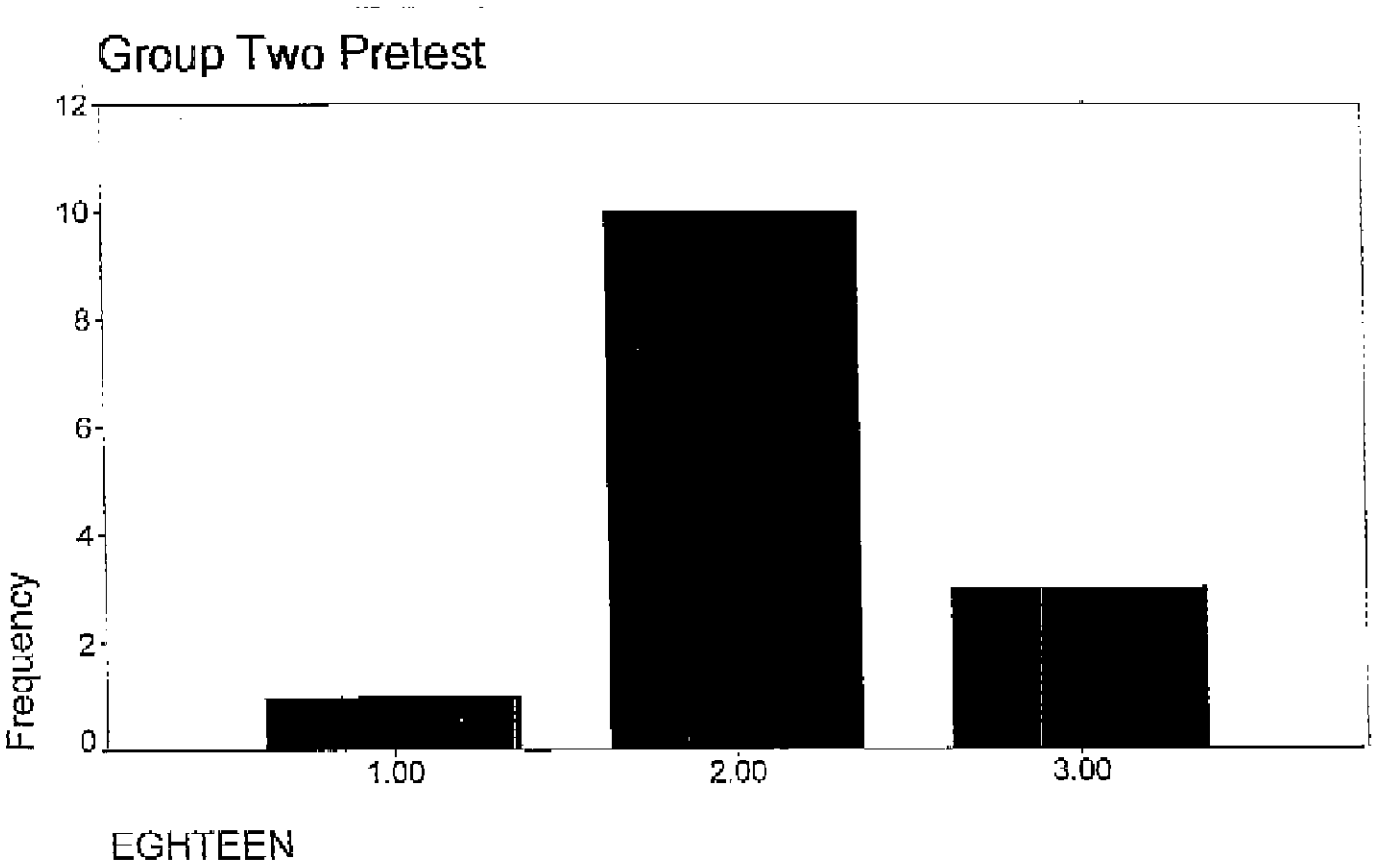

Group Two Posttest
10
8
6
4
2
0
Frequency
1.00
2.00
SEVNTEEN

TABLE 2 B


Group Two Pretest
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
EGHTEEN

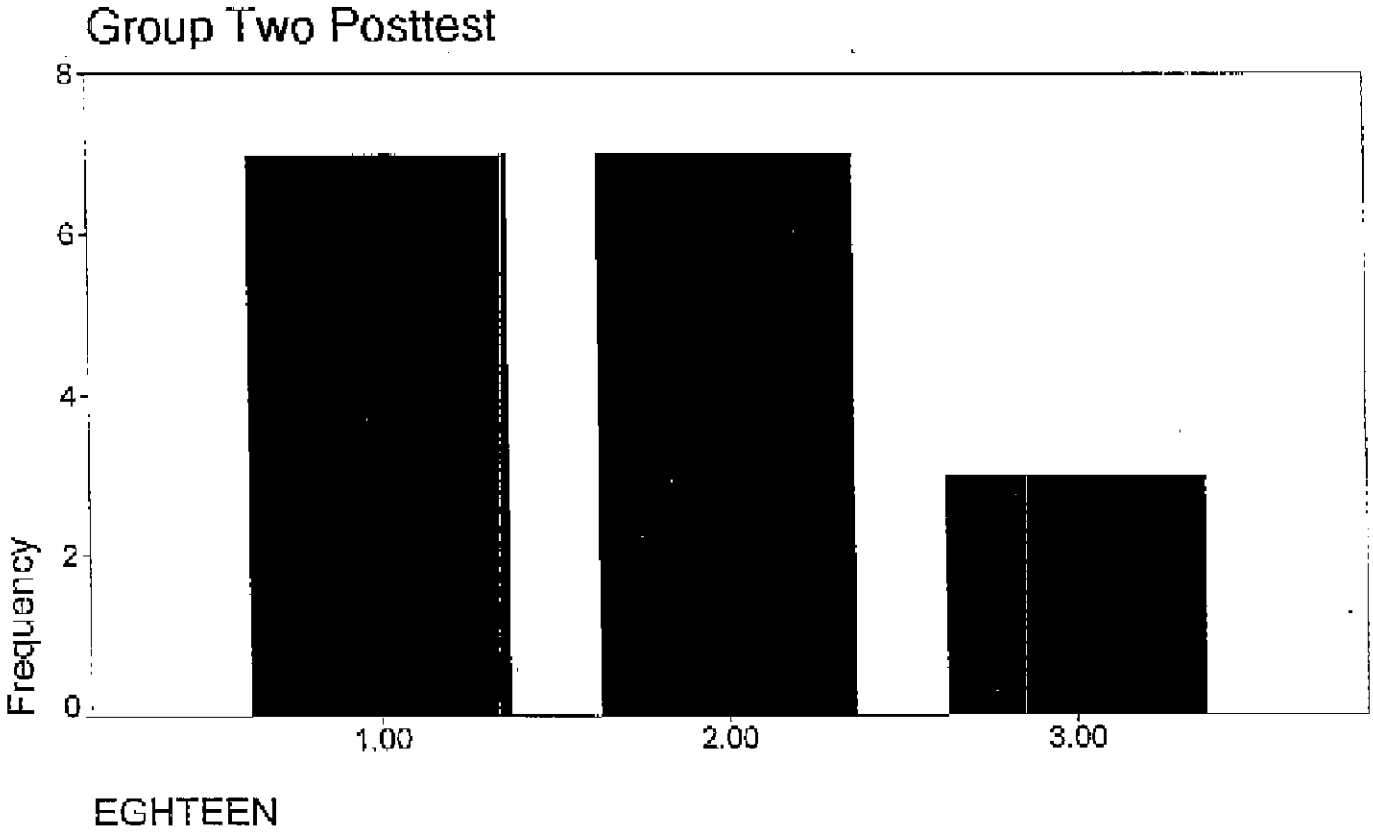
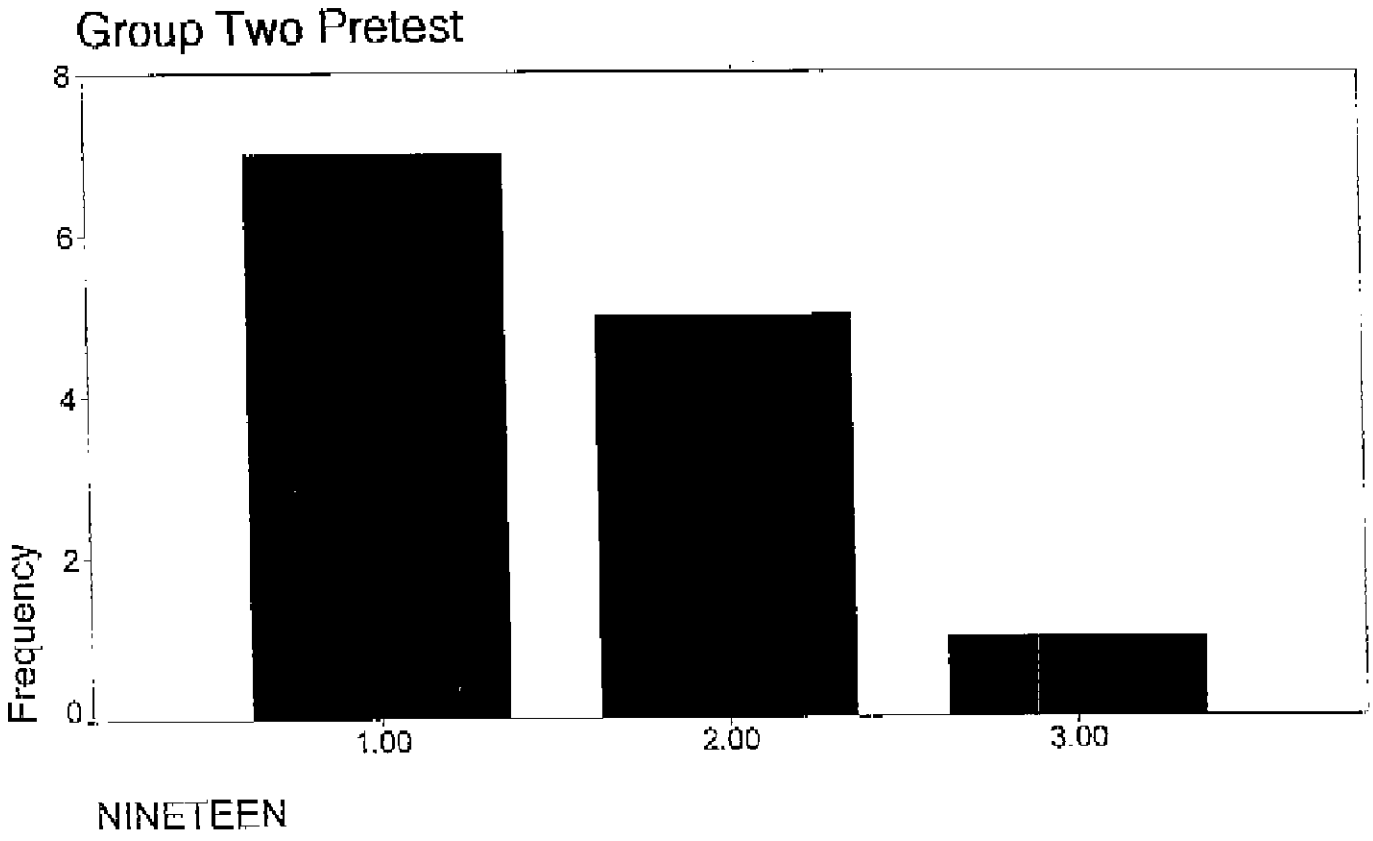
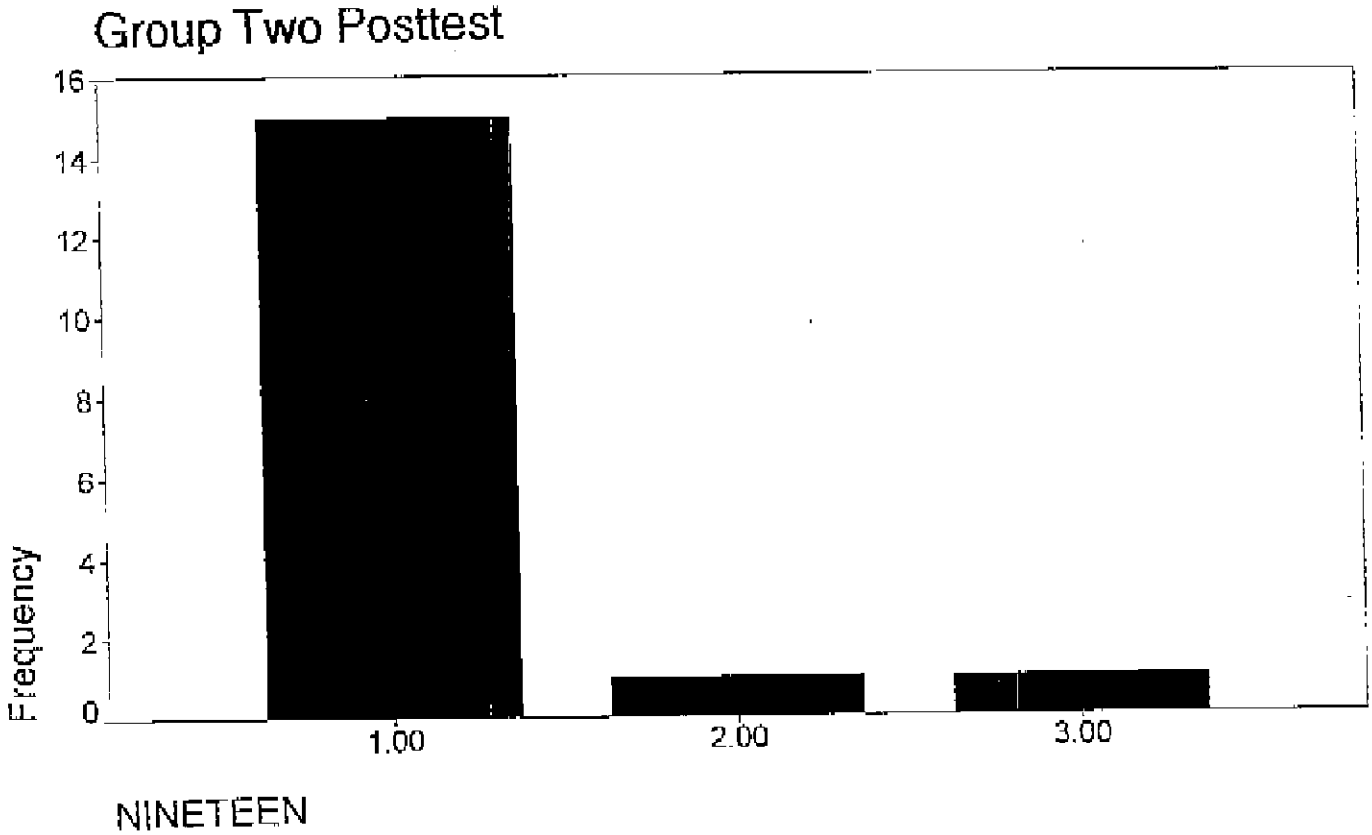

Group Two Posttest
8
6
4
2
0
Frequency
1.00
2.00
3.00
EGHTEEN

TABLE 2 B


Group Two Pretest
8
6
4
2
0
Frequency
1.00
2.00
3.00
NINETEEN


Group Two Posttest
16
14
12
10
8
6
4
2
0
Frequency
1.00
2.00
3.00
NINETEEN

Overall Score Results

Overall posttest frequency distribution scores for both groups reflected a 79 percent positive increase of all scale items. Group One's increase was after 7 weeks of the intervention and Group Two's was after 5 weeks. Tables 3 A and 3 B clearly indicate pretest and posttest variances. Overall mean score results however differed among the groups. In Group One, overall mean score indications show a pretest score of 2.154 for all positive items and 2.156 on the posttest, a minuscule increase of only .002. Negative item score for Group One's pretest was 1.44 with a posttest score of 1.45. This was an increase of .01 when it should have reflected a decrease if more positive attitudes were present, obviously they were not.

Group Two's scores however do reflect a growth in attitude change. Compiled pretest mean score on all positive items was 2.34 while posttest score increased to 2.40. Negative items also reflected positive changes by the pretest score being 1.70 and dropping to 1.54 on the posttest.

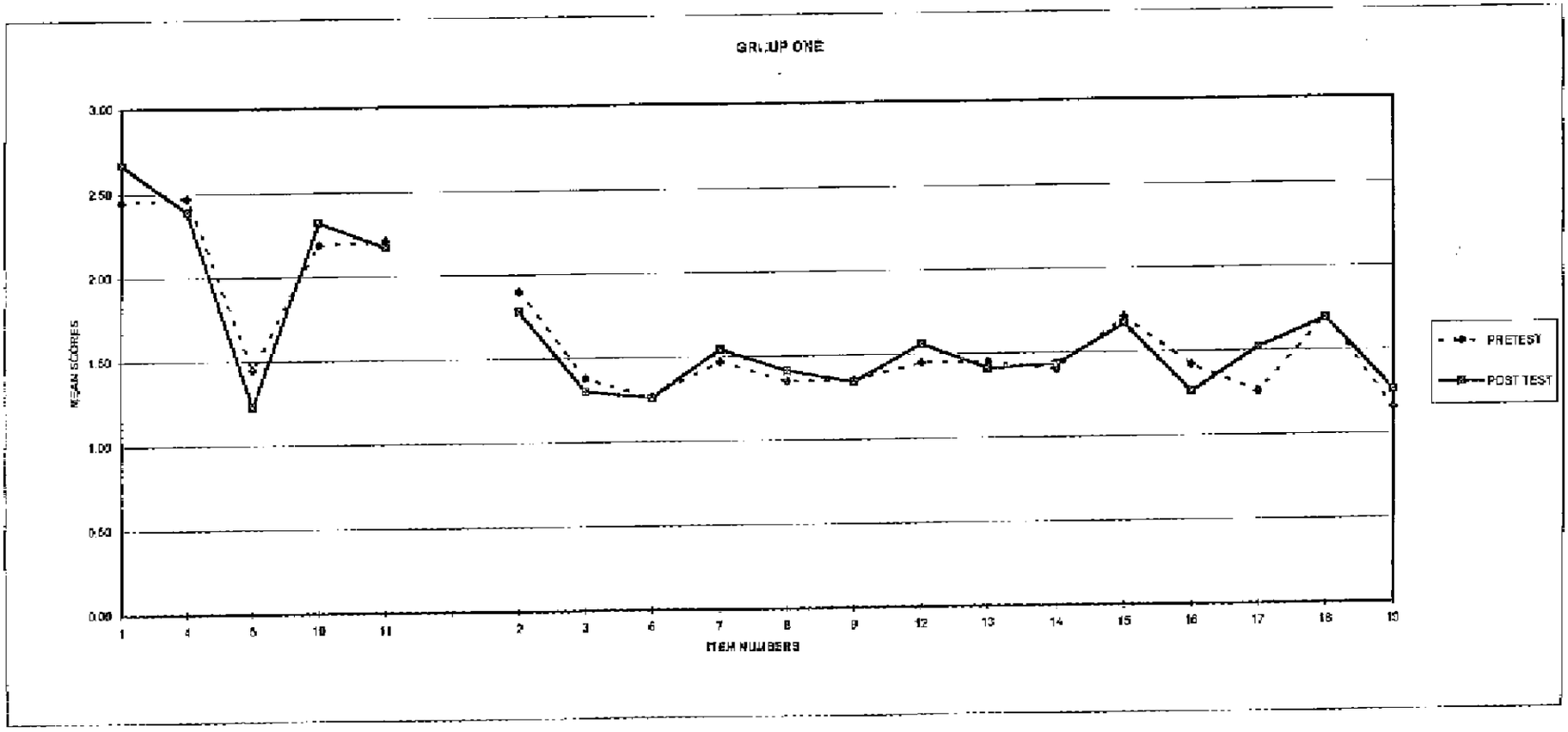
Differences in frequency distribution scores and mean scores for both groups are directly related to the discrepancy in the number of pre and posttest that were taken, as well as to number of blank or zero responses provided. Zero responses are reflected on table 1A and 1B and though zero responses were not indicated on the scale choices, it was necessary to include them when tabulating scores.

TABLE

ATTITUDE TOWARD DISABLED PERSONS
SCALE MEAN SCORES
GROUP ONE

Item Numbers

	POSITIVE ITEM NUMBERS					NEGATIVE ITEM NUMBERS													
	1	4	5	10	11	2	3	6	7	8	9	12	13	14	15	16	17	18	19
PRETEST	2.45	2.47	1.45	2.19	2.2	1.90	1.38	1.26	1.47	1.35	1.35	1.45	1.45	1.40	1.71	1.42	1.26	1.69	1.16
POST TEST	2.67	2.38	1.23	2.32	2.18	1.78	1.30	1.26	1.54	1.41	1.34	1.56	1.41	1.43	1.67	1.26	1.52	1.69	1.26

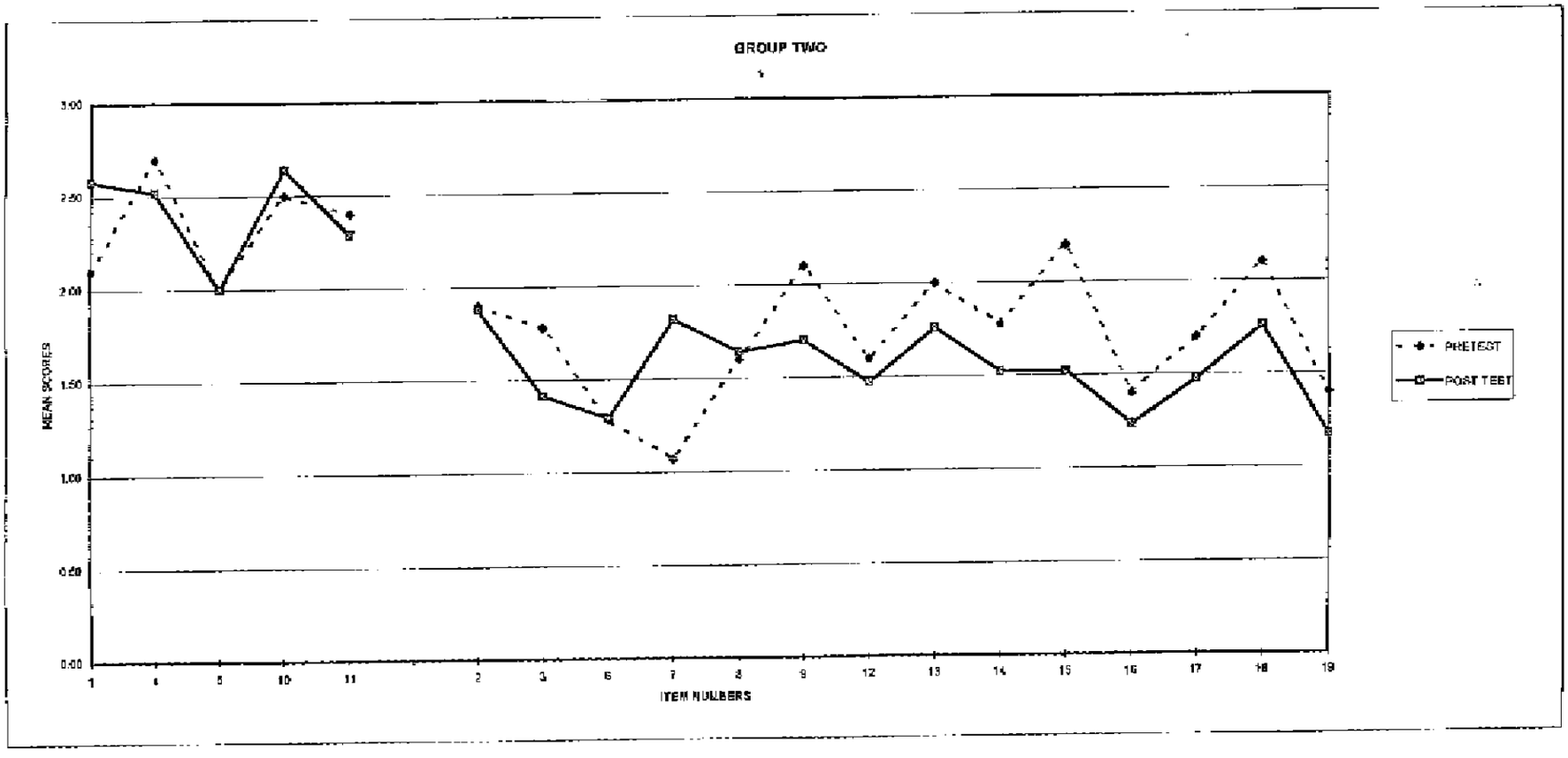


ATTITUDE TOWARD DISABLED PERSONS
SCALE MEAN SCORES
GROUP TWO

Item Numbers

	POSITIVE ITEM NUMBERS				
	1	4	5	10	11
PRETEST	2.10	2.70	2.00	2.50	2.40
POST TEST	2.58	2.52	2.00	2.54	2.29

	NEGATIVE ITEM NUMBERS													
	2	3	6	7	8	9	12	13	14	15	16	17	18	19
PRETEST	1.90	1.78	1.28	1.07	1.60	2.10	1.60	2.00	1.78	2.20	1.40	1.70	2.10	1.40
POST TEST	1.88	1.41	1.29	1.82	1.64	1.70	1.47	1.76	1.52	1.52	1.23	1.47	1.76	1.17



CHAPTER FIVE

SUMMARY AND CONCLUSION

Purpose and Problem of the Study

The purpose of this study was to measure the attitudes of nondisabled students towards their severely disabled peers. Further implications were to determine if the attitudes of nondisabled students could be positively affected through personal contact with their disabled peers within public school inclusion activities.

My hypothesis throughout the study was that public school inclusion activities would facilitate positive attitudinal changes among nondisabled students toward their severely disabled peers. This study attempted to address this by using a scale to measure attitudes of nondisabled students before and after having personal contact with their disabled peers during inclusion activities. The overall result of the study indicated that a definite change in attitude among nondisabled students was present. Item by item positive indications of attitude change did occur in both groups, however, group Two did experience more substantial results than did Group One. It is the opinion of this researcher that the uncontrolled factor which impacted most on the study was the experience of Group Two teacher. The teacher of Group Two had included a severely disabled student in his music classes on other occasions. Group One teacher was experiencing this for the first time and did exhibit levels of discomfort.

This researcher concludes that teacher efficacy, student age, and prior experiences of the teacher were the overall variables that impacted on this difference.

Research Comparisons

Antonak & Harth, (1994) suggest that the study of attitudes or behaviors of influential individuals such as teachers can lead to the strategies which may help to change the attitudes of the students they influence. It may be apparent that the attitudes and behaviors of the teachers of these inclusive activities played some role in the results of this study. The teacher of Group One's attitude was obviously not as accepting, comfortable or positive as that of the teacher of Group Two and may have been a variable to Group One's score results.

Rees, Spreen and Harnadek (1991) suggest that one way to change negative attitudes is to provide a combination of education about disabilities as well as direct, structures contact with disabled individuals. Again Group Two's activity was much more structured and informative than was Group One. The teacher in Group One had specific times during the activity when the disabled student was addressed and he had specific activity ideas in which to best actively include the disabled student. In Group One no active involvement was attempted.

Research concerning public school inclusion supports the need to provide regular education teachers with necessary education and preparation to adequately relate to disabled students. In this study such preparations were not provided. Both teachers seemed to be constantly strapped for time. When this researcher

would request any time that might interfere with the class activity or with the teacher schedule, only minutes were made available. Administration of some tests was even done hurriedly, sometimes with little time for adequate completion. Perhaps, even more success with the study would have resulted had more time been set aside for the teacher and researcher to exchange information, set up supports and incorporate activity ideas. For example, Fox (1989) suggests a peer tutor could have been utilized in some activity situations. In Group One's band practice one student per session could have been asked to meet with the disabled student before or after class to demonstrate to the nondisabled student how the instrument is played, the various sounds it can produce, the feel of the instrument, etc. This would increase peer interaction as well as give both students a sense of self esteem or self fulfillment. Donaldson, Helmstetter, Donaldson & West (1994) also reinforce this by stating that additional developments of positive attitudes is to recognize the need for nondisabled students to not only integrate with nondisabled students but also for them to accommodate their disabled peers through the use of such practices as curriculum development and peer tutoring.

The age differences between the two groups may also be a variable between the difference in score results. The younger students may have had other opportunities to be involved with disabled children and have already begun to develop positive attitudes towards the disabled. The older high school students may not have had previous experiences with the disabled as the trend to include the disabled is still somewhat new in the educational arena.

Research has shown that nondisabled student contact with disabled students can improve attitudes toward and acceptance of the disabled population. This study has added some credence to that research. However, research also concludes that the type of contact, the quantity, quality, structure and consistency are a few factors to consider because without them, any positive attitude changes that do take place may not be maintained over time.

Study Limitations and Implications

Limitations of this study include the amount of time that was provided to administer the measurement scale. If the scale could have been interview administered, more information could have been extracted and pretest and posttest numbers would have been accurate. Other limitations in some instances were the minimal amounts of encouraged peer interactions, teacher involvement, active participation of disabled students and researcher to teacher idea exchange.

Simply understanding that even under limited situations, positive changes can be developed. This knowledge should give educators the motivation to consistently strive towards positive changes. Educators can look at inclusive education in a more positive light. They can see that students of varying degrees of disabilities can somehow take part in regular education with minimal disruptions to classroom routine and with benefits to the disabled and nondisabled.

Reviewing this study can assist future researchers to know what variables to put in place or to remove in order to facilitate greater positive results. Further

evidence to support the need for inclusive education can be provided to those who still require convincing.

Conclusions and Recommendations

In this study, research was gathered to determine if the attitudes of nondisabled students toward their disabled peers could be positively affected through public school inclusion activities. Based on the data from this study it can be said that positive attitudes were increased among the nondisabled albeit more in Group Two than in Group One. Numerous variables contributed to the two groups' discrepancies. However, that some positive attitudinal changes were apparent even within this limited study, proves that positive attitudes can be generated even more so within quality educational experiences.

This information is important as the trend in policy continues to move toward inclusive education. Educators having some opposition to such trends should be aware that there are positive implications that should be highlighted. One such implication is that developing positive attitudes toward an ever increasing and serviceable population is a benefit to all parties within the educational system.

APPENDIX A

ATTITUDE TOWARD DISABLED PERSONS SCALE

FORM - O

Directions: Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write 1, 2, 3; depending on how you feel in each case.

KEY

3: I agree very much
2: I agree alittle
1: I disagree

Reprinted from the text, *The Measurement of Attitudes Toward people with Disabilities*, (Methods, Psychometrics and Scales); by Antonak, Richard, F., & Livneh, Hanoch.

_____ 1. Physically disabled children are just as smart as non-disabled ones.

_____ 2. Disabled children are usually easier to get along with than other children.

_____ 3. Most disabled children feel sorry for themselves.

_____ 4. Disabled children are the same as anyone else.

_____ 5. There should not be special schools for disabled children.

_____ 6. It would be best for disabled children to live and work in special neighborhoods.

_____ 7. It is up to the government to take care of disabled children.

_____ 8. Most disabled people worry a great deal.

_____ 9. Disabled children should not have to work as hard as non-disabled children.

_____ 10. Disabled children are as happy as non-disabled ones.

_____ 11. Disabled children with many disabilities are no harder to get along with than those with fewer disabilities.

_____ 12. It is almost not possible for disabled children to have a normal life.

_____ 13. You should not expect too much from disabled children.

_____ 14. Disabled children almost always keep to themselves much of the time.

_____ 15. Disabled children are more easily upset than non-disabled children.

_____ 16. Disabled children can not have a normal social life, like going to the movies, parties, or having friends.

_____ 17. Most disabled children feel that they are not as good as other children.

_____ 18. You have to be careful what you say when you are with disabled children.

_____ 19. Disabled children are often grouchy.

References

Antonak, R. F. (1994). Development and psychometric analysis of an indirect measure of attitudes toward individuals with mental retardation using the error-choice method. Mental Retardation, 32 (5), 347-355.

Antonak, R. F., & Harth, R. (1994). Psychometric analysis and revision of the mental retardation attitude inventory. Mental Retardation, 32 (4), 272-280.

Antonak, R. F., & Livneh, H. The Measurement of Attitudes Toward People with Disabilities. Illinois: Charles C. Thomas, 1988.

Bak, J. J., Cooper, E. M., Dobroth, K. M., & Siperstein, G. N. (1987). Special education class placements as labels: Effects on children's attitudes toward learning handicapped peers. Exceptional Children, 54 (2), 151-155.

Bak, J. J., & Siperstein, G. N. (1987). Similarity as a factor effecting change in children's attitudes towards mentally retarded peers. American Journal of Mental Deficiency, 91 (5), 524-531.

Block, M. E., & Rizzo, T. L. (1995). Attitudes and attributes of physical educators associated with teaching individuals with severe and profoundisabilities. Journal of the Association for persons with Severe Handicaps, 20 (1), 80-87.

Condon, M. E., York, R., Heal, L. W., & Fortschneider, J. (1986). Acceptance of severely handicapped students by nonhandicapped peers. Journal of theAssociation for Persons with Severe Handicaps. 11(3), 216-219.

Darrow, A. A., & Johnson, C. M. (1994). Junior and senior high school music students' attitudes toward individuals with a disability. Journal of Music Therapy, 31, (4), 266-279.

Donaldson, R.M., Helmstetter, E., Donaldson, J., 7 West, R. (1994). Influencing high school students' attitudes toward and interactions with peers with disabilities. Social Education, 58(4), 233-237.

Esposito, B. G., & Reed, T. M. (1986). The effects of contact with handicapped persons on young children's' attitudes. Exceptional Children, 53, (3), 224-229.

Fiedler, C. R., & Simpson, R. L. (1987). Modifying the attitudes of nonhandicapped high school students toward handicapped peers. Exceptional Children, 53, (4), 342-349.

Fortini, M. E. (1987). Attitudes and behavior toward students with handicaps by their nonhandicapped peers. American Journal of Mental Deficiency, 92 (1), 78-84.

Fox, C. L. (1989). Peer acceptance of learning disabled children in the regular classroom. Exceptional Children, 56, (1), 50-59.

Giangreco, M. F., Dennis, R., Cloninger, C., Edelman, S., & Schattman, R. (1993). "I've counted Jon": Transformational experiences of teachers educating students with disabilities. Exceptional Children, 59(4), 359-372.

Helmstetter, E., Peck, C. A., & Giangreco, M. F. (1994) Outcomes of interations with peers with moderate or severe disabilities: A statewide survey of high school students. Journal of the Association for Person with Severe Handicaps, 19(4), 263-276.

McQuilkin, J. I., Freitag, C. B., & Harris, J. L. (1990). Attitudes of colleges students toward handicapped persons. Journal of College Student Development, 31, 17-22.

Rees, L. M., Spreen. O., & Harnadek, M. (1991). Do attitudes towards persons with handicaps really shift over time? Comparison between 1975 and 1988. Mental Retardation, 29, (2), 81-86.

Rothlisberg, B. A., and others. (1992). Social acceptance of mentally retarded children by nonlabeled peers. (Clearing House No. PSO 21516). Indiana, (ERIC Document No. ED358970)

Salend, S. J. (1994). Strategies for assessing attitudes toward individuals with disabilities. The School Counselor, 41, 338-342.

Stewart, C. C. (1991). Labels and the attitudes of undergraduate physical education students toward disabled individuals. The Physical Educator, 48, 142-145.

Trent, L.M. (1993). Changing student attitudes about disabilities. Principal, 73, 32-34.