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ABSTRACT

This descriptive study of vocational teachers' classroom behavior and their students' achievement after the teachers took ITIP (Instructional Theory into Practice) training found the following: (1) vocational classroom teachers perceived some increase in their instructional skill in all areas, although the majority of respondents reported no change in the use of 26 skills; (2) student achievement, as perceived by teachers, increased in all areas, ranging from 17.2 percent to 60 percent; and (3) the higher the teacher's degree and the certificate held, the higher that teacher rated and perceived use of some skills. Questionnaire responses from 32 teachers, counselors, and administrators in Michigan's second largest school district were analyzed. In addition to the demographic information they provided, respondents used the questionnaires to rate the importance of, and their use of, 30 instructional skills they had learned to use during their ITIP training. The teachers reported an increase in their use of wait time, creating a level of concern, and creating an environment for success of the students. The majority of respondents reported that, after the teachers' training, their students more often had better answers to questions and responded to success, while the majority reported no change in 11 other measures of student achievement. (The document contains a 14-item reference list.) (CML)

ITIP: AN INVESTIGATION INTO THE PERCEIVED USAGE OF ITIP TRAINING AMONG VOCATIONAL TEACHERS AND STAFF

by

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A thesis

submitted in partial fulfillment

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CHAPTER I

BACKGROUND AND STATEMENT OF THE PROBLEM

Madeline Hunter's (ITIP) Instructional Theory Into Practice is one of the most popular and widely used educational models that face us today, according to Stallings (1985), "Under What Conditions Do Children Thrive in the Madeline Hunter Model? A Report of Project Follow Through, Napa, California." Superintendents and principals of our second largest school district and others have been eager to introduce their staff to ITIP. With this sudden push of enthusiasm from administrators, teachers are being trained in ITIP at no cost to the teacher.

Statement of the Problem

There is a need to know if the teachers are using the ITIP training to the degree that the administrators think the teachers are using this free training.

Purpose of the Study

The results of this study can be used by the profession to continue training the teachers in the current fashion or possibly stimulate a new approach to ITIP training. This research may show the profession that ITIP training should be encouraged at the B.S. level. The results of this study may be used to encourage more school districts to implement ITIP training. Or this research may encourage other researchers to employ a new way to introduce ITIP training.

There have been many articles published on the value of ITIP, and many dollars spent in training teachers in ITIP. Now it must be known if the teachers are actually using their ITIP training and/or to what degree are they using this training.

This research will compare administrator's perceptions of the degree to which the teachers are using ITIP training and the degree to which teachers are actually using ITIP training, stratified by the demographics of the involved subjects.

Research Questions to be Answered

The questions to be answered are as follows:

1. What classroom instructional skills were perceived to increase by teachers in the study?
2. Are there differences between teachers and administrators in their perceptions of teacher changes in instructional practices?
3. What changes do teachers see in student achievement as a result of using ITIP in the classroom?
4. Are there differences among demographic groups in teacher perceptions of student achievement and instructional practices?

A questionnaire will be developed and reviewed by a jury panel of professors at Ferris State University and a local ITIP trainer. Dr. John Jeffreys will be mailing and receiving the questionnaires to form a more valid reaction from the participants.

Limit and Scope of this Study

This study will be conducted in view of the following limitations: the research will be conducted at one vocational school in Michigan involving about sixty instructors, ten counselors, and five administrators.

Assumptions

The primary assumptions made with respect to the study are that (a) ITIP is a valid method of increasing student achievement, and

(b) that teachers will utilize ITIP practices in their classrooms after training.

Being a teacher that has been through ITIP training with colleagues, this author believes that there are many "turned off" teachers who are not using ITIP. This author further believes that some teachers feel that this ITIP training was forced on them by administrators, the ITIP training doesn't pertain to them because they are secondary vocational instructors, that administrators believe that ITIP is some of the best training and motivation they can give to their teachers, and the author believes that administrators believe in the value of ITIP for bettering student achievement.

At this time there is no research available to show what is generally assumed to be true except for the increased training in ITIP.

Format of the Study

This study is organized into five chapters.

Chapter I, Background and Statement of the Problem, includes purpose of the study, statement of the problem, research questions to be answered, and format of the study.

Chapter II, Review of the Literature, contains a review of ITIP training by Madaline Hunter and research that has been conducted on effective teaching strategies.

Chapter III, Research and Methodology, includes the scope of the study, population, development of the survey instrument, administration of the survey, and analytic techniques.

Chapter IV, Presentation and Analysis of Data, includes an analysis and presentation of the data obtained in the study.

Chapter V, Summary and Conclusions and Recommendations, includes a summary of the findings and conclusions.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The ERIC system was the primary source of related materials reviewed for this paper. The essence of the review revealed research dealing with the effective teaching strategies which Madaline Hunter appears to employ in her ITIP training program.

According to recent studies, 2,378 schools in 25 states are involved in different "school effectiveness programs." These programs demonstrate five correlates of an effective school: strong instructional leadership, positive school climate, high expectations, academic focus, and monitoring student achievement. (Wolfe, 1988)

As far as time-on-task goes, in Texas some schools went as far as increasing the length of the school day or the number days in the school year. This was actually a misuse of the research. Time-on-task is in the hands of the teacher as far as classroom management is concerned. Other forms of loss of time-on-task are absences and disruptions. Time-on-task research is effective when there is an appropriate amount of active learning. (Karweit, 1988)

Mastering appropriate techniques for asking questions should be a part of every teacher's routine. Questions are necessary to help students understand and utilize content in the formulation of ideas, concepts, relationships and principles. According to research, there are five major characteristics to keep in mind when formulating questions--be

concise, be challenging, be group oriented, adapt to age and ability of students, and initiate a variety and mix. Research also indicates that calling on non-volunteers can be effective as long as students who are called on can answer the question most of the time. Research also suggests to use wait time so students have time to think and formulate answers. Redirecting or probing is necessary if a student answers incorrectly. Also the use of praise honestly such as a smile or nod of approval is very effective. Madeline Hunter would call this success. (Ornstein, 1988)

Edward Lawton (1987) stated in his article that attitude and modeling behavior of the entire school staff is the most important factor in providing an effective shcool learning environment. Attitude and modeling are also suggested by other researchers, thus, suggesting that people in control do make a difference in student's lives.

Principals see effective schools as having a positive climate, thus, a school where the entire staff fosters a caring attitude, and the students feel good about attending and teachers feel good about teaching then will schools provide high achievement. Principals are promoting the idea that teachers do make a difference. (Wolf, 1988)

Research at the vocational level involves ability to establish objectives, planning lessons to meet those objectives, and choosing appropriate materials and methods. To evaluate instructional effectiveness, one could use feedback methods such as checklist, observations, anecdotal records, discussion, video taping, and student performance. (Gresham, 1984)

South Carolina sought to increase instructional effectiveness by providing for more effective use of classroom time by reducing

interruptions to emergencies, thus trying to aim in on the time-on-task which has been a concern of many educators. (South Caroline, 1984).

Massachusetts made a list of twenty teaching skills to create effective teaching. Some of the characteristics are establishing a set, closure, pacing (adjusting to the rate of comprehension), asking questions, using expressions (voice tone, gestures, etc.), student participation, interpersonal relations (relating to students in ways which promote mutual respect), enthusiasm, variety of teaching methods, creativity, level of challenge, and relevency to mention a few. These concepts are very much in line with other concerned researchers. (Bartell, 1987).

Effective literacy programs prove that peer tutoring and teacher behavior and attitude are basic to learning (Phillips, 1985). The research states that teachers need to attend to their students' emotional and affective needs while they are providing instruction. The prominant behavior is willingness to praise, demonstrate high expectations, patience and respect, and creativity and skill at establishing a relaxed, safe, trusting classroom environment. Most research appears to be aiming in the same direction for effective teaching skills. Now to train the teachers that we have in how to use these skills to gain higher achievement in students is the next step.

One of the most popular models to surface is ITIP (Instructional Theory Into Practice) by Madeline Hunter. From the project in California these concepts emerged: use of set, check for understanding as you teach, use of objectives and sticking to them, guided practice, and closure. These components were found to be effective instructional techniques when used by teachers (Stallings, 1985).

According to Carol Cummings (1980), students' learning gains lie directly with the school and even more directly with the teacher. In her book she says that selecting the level of difficulty and level of complexity are as important as teaching to the objective. She uses Madeline Hunter's ITIP style throughout her book. She encourages monitoring and adjusting, active participation, set and closure, reinforcement (feedback and smiles), motivation, and guided practice (questions and checking for understanding). She also encourages small group or peer type learning. It appears that Hunter is in agreement with all the recent research. But she has added another touch, that is to teach the teachers the skills to promote higher student achievement.

Research findings published by the U.S. Department of Education (1986) tell us that teachers who set and communicate high expectations to all their students obtain greater academic performance, that the amount of time students are actively engaged in learning contributes strongly to their achievement, that student achievement rises when teachers ask questions that require students to apply, analyze, synthesize, and evaluate information. Hunter has also taken all of this research and worked it into her ITIP program.

For the most part, this literature review says that teachers do make a difference in the classroom. This review provides us with the knowledge of techniques that are effective in bringing about higher achievement in students, as well as a training program for teachers to learn how to promote and use this information. Now the question is, are the teachers using these effective teaching techniques.

CHAPTER III

METHODOLOGY AND PROCEDURES

This is a nonexperimental descriptive design which will show a relationship between administrators' preceived value of ITIP and the teachers' perceived value of ITIP. It will also show a relationship between administrators' perceived usage of ITIP and the teachers' preceived usage of the ITIP training.

There will be no pilot studies conducted.

Population and Sample Size

The information will be gathered from 58 teachers, six counselors, and five administrators with one to seventeen years of teaching or counseling experience in a vocational setting. The subjects have backgrounds in auto body, auto mechanics, cosmotology, foods, baking, horticulture, floral design, marine mechanics, child care, CAD, three-phase graphic arts, marketing, health, electronics, building construction, machine tool, secretarial, computer, accounting, maintenance, janitorial, uphostery, and welding. This study is being conducted in Michigan's second largest school district (limited and vocational).

Development of the Survey Instrument

An author-developed questionnaire which will be reviewed by a panel of experts will be used for the study. This questionnaire will contain demographic information in multiple choice format and classroom behavior and achievement information in a scaled response format.

Administration of the Survey

The questionnaires will be mailed to the Kent Skills Center and College Avenue Skills Center by Dr. John Jeffrey, Superintendent of the Big Rapids Public Schools by winter of 1988-89. The subjects will fill out the questionnaire and return them to Dr. Jeffrey's office. Dr. Jeffrey will then give them to the author for analysis. This is being done to avoid as much controversy as possible in data collecting. Another possible controversy could be the fact the Dr. Jeffrey was an ITIP instructor for about one quarter of the group in the study, therefore, some likes or dislikes toward Dr. Jeffrey could somewhat bias the questionnaire. One person will be doing the recording but all questionnaires will be saved until the study is concluded in case a review of material is needed.

Statistics will be obtained through means and percentages which will be displayed through charts, frequencies graphs, and T-test tables.

The study included a wide variety of subjects with varied backgrounds. The reviewing of the questionnaire by a pannel of experts and mailing them through an established office should secure a set of valid responses.

The research hopes to point out a positive or negative value of the ITIP training so that school districts know how far to carry out that ITIP training or whether to even offer ITIP to their teaching staff if they have not done so.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This study is to determine the value of ITIP training. The survey placed an importance value on each ITIP training skill, as well as determining an increase or decrease in the use of the training skill or no apparent change in the use of the training skill.

The presentation of the data in Chapter IV follows a format of (1) presentation and interpretation of the applicable data received via survey, (2) charts of comparison, (3) frequency graphs of significant differences, (4) summaries of T-test, and (5) a summary section.

Analysis of Survey Effectiveness

The survey was sent to all instructors, counselors, and administrators at the vocational level of the second largest school district in Michigan. There were 69 surveys sent with a return of 36; four were incomplete, therefore 32 were used for analysis. Table 4.01 shows the classification of the 32 respondents which is 46.3% of the total number of surveys mailed.

Demographics of the Survey

Tables 4.01 - 4.07 display the demographics of the survey respondents. Table 4.01 summarizes the respondents by their job titles.

Table 4.01 Summary of Present Job Title

Title of Respondent	Number of Respondents	Percent of Total Respondents
Vocational Teacher	27	84.4
Special Education Teacher	0	0
Adminsitrator	1	3.1
Counselor	1	3.1
Other	3	9.4
Total	32	100

Table 4.02 identifies the distribution according to the gender of respondents.

Table 4.02 Respondents by Gender

Gender of Respondents	Number of Respondents	Percent of Total Respondents
Male	23	71.9
Female	9	28.1
Total	32	100

Table 4.03 summarizes the respondents school environment experience.

Table 4.03 Summary of Respondents School Related Work Experience

Years of Experience	Number of Respondents	Percent of Total Respondents
1-5 years	7	21.9
6-10 years	7	21.9
11+ years	18	56.3
Total	32	100

Table 4.04 summarizes the respondents by ethnic background.

Table 4.04 Summary of Ethnic Background

Ethnic Background	Number of Respondents	Percent of Total Respondents
Caucasian	28	90.3
Hispanic	2	6.5
Asian	1	3.2
Black	0	0
Other	1	0
Total	32	100

Table 4.05 summarizes the respondents educational experience.

Table 4.05 Summary of Respondents Education

Type of Degree	Number of Respondents	Percent of Total Respondents
High School Diploma	4	12.5
Associate Degree	1	3.1
B.S. Degree	20	62.5
Masters	7	21.9
Other	0	0
Total	32	100

Table 4.06 summarizes the respondent's teaching certificate.

Table 4.06 Summary of Type of Certificate

Type of Certificate	Number of Respondents	Percent of Total Respondents
Annual Authorization	5	16.7
Temporary Vocational Authorization	7	23.3
Secondary Provisional Certificate	5	16.7
Full Vocational Authorization	10	33.3
Secondary Continuing Certificate	3	10.0
Other	2	0
Total	32	100

Table 4.07 summarizes the respondents by age.

Table 4.07 Summary of Respondents by Age

Age of Respondents	Number of Respondents	Percent of Total Respondents
20 - 25 years	1	3.1
26 - 30 years	1	3.1
31 - 35 years	3	9.4
36 - 40 years	8	25.0
41 - 45 years	7	21.9
46 - 50 years	5	15.6
51 - 55 years	2	6.3
56 - 68 years	5	15.6
61 - 65 years	0	0
Total	32	100

Ratings of the ITIP Training Skills

The following pages contain Tables 4.08 to 4.12. These tables contain rating scales using the mean, as well as other appropriate information to show totals and comparisons.

Table 4.08 summarizes the ITIP training skills of all respondents. Importance has a high rating of 5 and a low rating of 1. The use of the training skills is given in the percent for increase use of skill, decrease use of skill, or no change in the use.

Table 4.08 Summary of Importance and Increase

Training Skills	Importance Mean	Use in Percent Increase	Decrease	No Change
Promote active participation of students	4.47	43.8		56.3
Monitor the learning process	4.31	43.8		56.3
Adjust your teaching to the pace of the students	3.97	21.9		78.1
Check for understanding by using signals	3.03	37.5	9.4	53.1
Use of wait time	4.06	68.8		31.3
Involve most of the students most of the time	4.28	43.8		56.3
Use of praise in the classroom	4.40	37.5		62.5
Give immediate knowledge of results	4.16	34.4		65.6
Create a level of concern	3.91	51.6	3.2	45.2
Check for level of difficulty	3.77	31.3		68.8
Lower the level of concern	3.47	40.6	9.4	50.0
Lower the level of concern for the test	3.72	43.8		56.3

Table 4.08 (cont)

Training Skills	Importance Mean	Use in Percent Increase	Decrease	No Change
Do a task analysis for each objective	3.94	18.8	3.1	78.1
Move close to students who are disruptive (Proximity)	4.03	34.4		65.6
Use Bloom Taxonomy	3.74	43.8	3.1	53.1
Improvement of time on task	4.32	40.6		59.4
Teach to an objective	4.58	37.5	3.1	59.4
Ignore students who are showing off	3.31	6.3	18.8	75.0
Select students to answer questions (in a systematic way)	3.77	35.5	9.7	54.8
Provide for peer tutoring	3.88	40.6		49.4
Create an environment for success of students	4.66	62.5		37.5
Create a positive self-concept	4.66	46.9		53.1
Use extrinsic rewards	3.72	37.9	3.4	58.6
Use "set" induction to prepare students for learning	4.06	50.0		50.0
Say good morning and/or good bye to students	4.50	31.3		68.8
Provide closure	4.23	48.8		51.6
Provide short practice for past learning	4.19	34.4		65.6
Use lots of examples	4.38	37.5		62.5
Make lessons meaningful	4.75	40.6		59.4
Write directions on the board	3.91	37.5		62.5

Table 4.08 (cont)

Student Achievement	Importance Mean	Use in Percent Increase	Decrease	No Change
Have better grades on homework	3.31	17.2		82.9
Turn in more homework	2.79	17.2		82.8
Achieve higher test scores	3.84	34.4	3.1	59.4
Respond to signals	2.81	41.9	9.7	48.4
Have better answers to oral questions	4.03	60.0	3.3	36.7
Pay attention longer	4.13	45.2		54.8
Perform tasks quicker	3.63	19.4	3.2	77.4
Of low achievement answer questions	3.72	36.7		63.3
Translate concepts into their own words	4.25	43.8		56.3
Retain information from one assignment or quiz to another	4.31	46.7		53.1
Responds to praise	4.09	37.5	3.1	59.4
Responds to rewards	3.83	31.3	3.1	65.6
Responds to success	4.38	50.0	3.1	46.9
Spends quality time on tasks	4.31	43.8	3.1	51.1

Table 4.09

Table 4.09 summarizes the ITIP training skills by gender and the number of respondents. The rating scale to determine the mean has a low of 1 and the high of 5 in determining the importance of the skill.

Table 4.09 Summary of Importance and Use

Training Skills	Male Number of Respondents	Mean	Female Number of Respondents	Mean
Promote active participation of students	23	4.35	9	4.78
Monitor the learning process	23	4.26	9	4.44
Adjust your teaching to the pace of the students	23	3.91	9	4.11
Check for understanding by using signals	22	3.00	9	3.11
Use of wait time	23	4.00	9	4.22
Involve most of the students most of the time	23	4.26	9	4.33
Use of praise in the classroom	23	4.17	9	5.00
Give immediate knowledge of results	23	4 00	9	4.56
Create a level of concern	23	3.83	9	4.11
Check for level of difficulty	22	3.64	9	4.11
Lower the level of concern	23	3.26	9	4.00
Lower the level of concern for test	23	3.52	9	4.22
Do a task analysis for each objective	23	3.87	9	4.11
Move close to students who are disruptive (Proximity)	23	3.96	9	4.22
Use Bloom Taxonomy	22	3.59	9	4.11
Improvement of time on task	22	4.14	9	4.78
Teach to an objective	23	4.39	9	4.78
Ignore students who are showing off	23	3.00	9	4.11
Select students to answer questions (in a systematic way)	21	3.57	9	4.22

Table 4.09 (cont)

Training Skills	Male Number of Respondents	Mean	Female Number of Respondents	Mean
Provide for peer tutoring	23	3.87	9	3.89
Create an environment for success of students	23	3.57	9	4.89
Create a positive self-concept	23	4.57	9	4.90
Use extrinsic rewards	20	3.40	9	4.44
Use "set" induction to prepare students for learning	23	3.91	9	4.44
Say good morning and/or good bye to students	23	4.39	9	4.78
Provide closure	21	4.14	9	4.44
Provide short practice for past learning	23	4.00	9	4.67
Use lots of examples	23	4.26	9	4.67
Make lessons meaningful	23	4.74	9	4.78
Write directions on the board	23	3.78	9	4.22

Table 4.09 (cont)

Student Achievement	Male Number of Respondents	Mean	Female Number of Respondents	Mean
Have better grades on homework	20	2.95	9	4.11
Turn in more homework	20	2.40	9	3.67
Achieve higher test scores	23	3.65	9	4.33
Respond to signals	22	2.91	9	2.56
Have better answers to oral questions	23	4.00	9	4.11
Pay attention longer	23	4.13	9	4.11
Perform tasks quicker	23	3.57	9	3.78
Of low achievement answer questions	20	3.70	9	3.78
Translate concepts into their own words	23	4.26	9	4.22
Retain information from one assignment or quiz to another	23	4.22	9	4.56
Responds to praise	23	3.78	9	4.89
Responds to rewards	23	3.48	9	4.78
Responds to success	23	4.17	9	4.89
Spends quality time on tasks	23	4.30	9	4.33

Table 4.10 summarizes the ITIP training skill by years of experience and the number of respondents. The rating scale to determine the mean has a low of 1 and a high of 5 in determining the importance of the skill.

Table 4.10

Training Skills	Years of Experience: 1 - 5 years Number of Respondents	Mean	6 - 10 years Number of Respondents	Mean	11+ years Number of Respondents	Mean
Promote active participation of students	7	4.43	7	4.57	18	4.44
Monitor the learning process	7	4.29	7	4.14	18	4.39
Adjust your teaching to the pace of the students	7	4.29	7	3.86	18	3.89
Check for understanding by using signals	7	2.71	7	2.14	17	3.53
Use of wait time	7	4.14	7	3.57	17	4.22
Involve most of the students most of the time	7	4.14	7	4.29	18	4.33
Use of praise in the classroom	7	4.54	7	4.43	18	4.33
Give immediate knowledge of results	7	4.00	7	4.29	18	4.17
Create a level of concern	7	4.14	7	3.71	18	3.99
Check for level of difficulty	7	4.00	7	3.43	17	3.82
Lower level of concern	7	3.71	7	3.14	18	3.50
Lower level of concern for test	7	4.00	7	3.29	18	3.70

Table 4.10 (cont)

Training Skills	Years of Experience: 1 - 5 years Number of Respondents	Mean	6 - 10 years Number of Respondents	Mean	11+ years Number of Respondents	Mean
Do a task analysis for each objective	7	4.00	7	4.14	18	3.83
Move close to students who are disruptive (Proximity)	7	4.14	7	3.71	18	4.11
Use Bloom Taxonomy	7	3.86	7	3.43	17	3.82
Improvement of time on task	7	4.57	7	4.29	17	4.24
Teach to an objective	7	4.14	7	4.57	18	4.61
Ignore students who are showing off	7	3.43	7	3.29	18	3.28
Select students to answer questions (in a systematic way)	7	4.00	7	3.00	16	4.00
Provide for peer tutoring	7	4.00	7	3.57	18	3.94
Create an environment for success of students	7	4.57	7	4.86	18	4.61
Create a positive self-concept	7	4.54	7	4.86	18	4.61
Use extrinsic rewards	7	4.33	7	3.00	17	4.76
Use "set" induction to prepare students for learning	7	4.00	7	4.14	18	4.06
Say good morning and/or good bye to students	7	4.71	7	4.42	18	4.41
Provide closure	7	4.57	7	4.00	16	4.19
Provide short practice for past learning	7	4.43	7	4.14	18	4.11

Table 4.10 (cont)

Training Skills	Years of Experience: 1 - 5 years Number of Respondents	1 - 5 years Mean	6 - 10 years Number of Respondents	6 - 10 years Mean	11+ years Number of Respondents	11+ years Mean
Use lots of examples	7	4.86	7	3.86	18	4.39
Make lessons meaningful	7	4.86	7	4.71	18	4.72
Write directions on the board	7	3.86	7	4.00	18	3.89

Table 4.10 (cont)

Student Achievement	Years of Experience: 1 - 5 years Number of Respondents	1 - 5 years Mean	6 - 10 years Number of Respondents	6 - 10 years Mean	11+ years Number of Respondents	11+ years Mean
Have better grades on homework	7	3.57	6	3.50	16	3.13
Turn in more homework	7	3.43	6	2.00	16	2.81
Achieve higher test scores	7	4.00	7	3.86	18	3.78
Respond to signals	7	2.29	7	2.57	17	3.11
Have better answers to oral questions	7	4.43	7	3.71	18	4.00
Pay attention longer	7	4.14	7	4.00	18	4.17
Perform tasks quicker	7	3.71	7	3.43	18	3.67
Of low achievement answer questions	7	3.43	6	3.58	16	3.94
Translate concepts into their own words	7	4.29	7	4.00	18	4.33
Retain information from one assignment or quiz to another	7	3.57	7	4.29	18	4.22
Responds to praise	7	4.00	7	3.86	18	4.22
Responds to rewards	7	4.00	7	3.43	18	3.94
Responds to success	7	4.29	7	4.14	18	4.50
Spends quality time on tasks	7	4.29	7	4.14	18	4.39

T-Test Tables

Table 4.11 to 4.18 on the following pages summarize responses by use of the T-test in a pooled variance which is compared by gender. A rating scale of 1 to 5 was used with 1 being low and 5 being the highest possible score.

Table 4.11 summarizes responses of the "Use of Praise." There were 23 males in Group 1 with a mean of 4.1739 and 9 females in Group 2 with a mean of 5.000. This data suggests that females are significantly more likely to use praise due to their ITIP training than males.

Table 4.11 Summary of "Use of Praise" Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance		Use of Praise		
Group 1	23	4.1739	1.029	0.215
Group 2	9	5.0000	0.000	0.000

Pooled Variance Estimate * Separate Variance Estimate

F Value	2-Tail Prob.	*	T Value	Degrees of Freedom	2-Tail Prob.	*	T Value	Degrees of Freedom	2-Tail Prob.
0.00	1.000		-2.38	30	0.024		-3.85	22.00	0.001

Actual T-test Value 2.04

Table 4.12 summarizes responses of "Ignoring students who are showing off." There are 23 males in Group 1 with a mean of 4.3910 and 9 females in Group 2 with a mean of 4.7778. This data suggests that females due to their ITIP training are significantly more likely to ignore students who show off than males.

Table 4.12 Summary of "Ignoring Students Who are Showing Off" Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance		Ignore Showoffs		
Group 1	23	3.0000	1.128	0.235
Group 2	9	4.1111	1.054	0.351

Pooled Variance Estimate * Separate Variance Estimate

F Value	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.
1.15	0.893	-2.55	30	0.016	-2.63	15.64	0.019

Actual T-test Value 2.04

Table 4.13 summarizes responses of "Use of Extrinsic Rewards." There are 20 males with a mean of 3.4000 in Group 1 and 9 females with a mean of 4.444 in Group 2. This data suggest that females are significantly more likely to use extrinsic rewards due to their ITIP training than males.

Table 4.13 Summary of "Use of Extrinsic Rewards," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance		Use Extrinsic Rewards		
Group 1	20	3.4000	1.314	0.294
Group 2	9	4.4444	0.726	0.242

Pooled Variance Estimate * Separate Vairance Estimate

F Value	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.
3.27	0.091	-2.22	27	0.035	-2.74	25.56	0.011

Actual T-test Value 2.05

Table 4.14 summarizes the responses of "Students Having Better Grades on Homework." There were 20 males in Group 1 with a mean of 2.9500 and 9 females in Group 2 with a mean of 4.111. This table shows females rate "Having Better Grades on Homework" as significantly more important than males after having ITIP training.

Table 4.14 Summary of "Students Having Better Grades on Homework," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Have Better Grades				
Group 1	20	2.9500	1.468	0.328
Group 2	9	4.111	0.928	0.309

Pooled Variance Estimate *				Separate Variance Estimate * *			
F Value	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.
2.50	0.186	-2.17	27	0.039	-2.57	23.58	0.017

Actual T-Test Value 2.05

Table 4.15 summarizes the responses of "Students Turning in More Homework." There were 20 males in Group 1 with a mean of 2.4000 and 9 females in Group 2 with a mean of 3.6667. This table shows us that females rate "Turning in More Homework" significantly more important than males.

Table 4.15 Summary of "Students Turning in More Homework," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Turn in Homework				
Group 1	20	2.4000	1.231	0.275
Group 2	9	3.6667	1.118	0.373

Pooled Variance Estimate				* Separate Variance Estimate			
F Value	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.	* * T Value	Degrees of Freedom	2-Tail Prob.
1.21	0.817	-2.63	27	0.014	-2.73	16.98	0.014

Actual T-Test Value 2.05

Table 4.16 summarizes the responses of "Students Responding to Praise." There are 23 males in Group 1 with a mean of 3.7826 and 9 females with a mean of 4.889 in Group 2. This table shows us that females rate "Student Response to Praise" significantly more important than males.

Table 4.16 Summary of "Students Responding to Praise," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Response to Praise				
Group 1	23	3.7826	1.043	0.217
Group 2	9	4.8889	0.333	0.111

Pooled Variance Estimate		*	Separate Variance Estimate				
F Value	2-Tail Prob.	*	T Value	Degrees of Freedom	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.
2.78	0.002		-3.09	30	0.004	04.53	29.47	0.0000

Actual T-Test Value 2.04

Table 4.17 summarizes the responses of "Student Responds to Rewards." There are 23 males in Group 1 with a mean of 3.4783 and 9 females in Group 2 with a mean of 4.7778. This table shows us that females rate "Student Responds to Rewards" significantly more important than males.

Table 4.17 Summary of "Student Responds to Rewards," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Response to Rewards				
Group 1	23	3.4783	1.123	0.234
Group 2	9	4.7778	0.441	0.147

Pooled Variance Estimate *				Separate Variance Estimate *			
F Value	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.
6.48	-.010	-3.34	30	0.002	-4.70	29.96	0.000

Actual T-Test Value 2.04

Table 4.18 summarizes the responses of "Respond to Success." There are 23 males in Group 1 with a mean of 4.1739 and 9 females in Group 2 with a mean of 4.8889. This talbe shows us that females rate "Respond to Success" significantly more important than males.

Table 4.18 Summary of "Respond to Success," Compared by Gender

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Respond to Success				
Group 1	23	4.1739	0.937	0.195
Group 2	9	4.8889	0.333	0.111

Pooled Variance Estimate		*	Separate Variance Estimate				
F Value	2-Tail Prob.	T * Value	Degrees of Freedom	2-Tail Prob.	*	T Value	Degrees of Freedom	2-Tail Prob.
7.90	0.005	-2.22	30	0.034	*	-3.18	29.92	0.003

Actual T-Test Value 2.04

T-Test Tables

Tables 4.19 and 4.20 on the following pages summarize responses by use of the T-Test in a pooled variance which is compared by years of experience. A rating scale of 1 to 5 was used with 1 being low and 5 being the highest possible score.

Table 4.19 summarizes the responses of "Students Turning in more Homework." Group are respondents with 1 - 5 years of experience and Group 2 are respondents with 6 - 10 years of experience. There are 7 in Group with a mean of 3.4286 and 6 in Group 2 with a mean of 2.0000. This table shows us that respondents with 1 - 5 years of experience rate "Turning in Homework" significantly more important than respondents with 6 - 10 years of experience.

Table 4.19 Summary of "Students Turning in More Homework," Compared by Years of Experience

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Turn in Homework				
Group 1	7	3.4286	1.272	0.481
Group 2	6	2.0000	0.894	0.365

Pooled Variance Estimate				* Separate Variance Estimate			
F Value	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.
2.02	0.456	2.30	11	0.042	2.37	10.66	0.038

Actuatl T-Test Value 2.20

Table 4.20 summarizes the responses of "Check for Understanding by Using Signals." Group 1 consists of 7 respondents with 6 - 10 years of experience and Group 2 consists of 17 respondents with 11+ years of experience. Group 1 has a mean of 2.1429, and Group 2 has a mean of 3.5294. This table shows the respondents with 11+ years of experience rate "Checking for Understanding by Using Signals" significantly more important that respondents with 6 - 10 years of experience.

Table 4.20 Summary of "Check for the Understanding by Using Signals," Compared by Years of Experience

Variable	Number of Cases	Mean	Standard Deviation	Standard Error
Skill Importance - Check Understanding				
Group 1	7	2.1429	0.900	0.340
Group 2	17	3.5294	1.328	0.322

Pooled Variance Estimate				* Separate Variance Estimate			
F Value	2-Tail Prob.	T *Value	Degrees of Freedom	2-Tail Prob.	* T Value	Degrees of Freedom	2-Tail Prob.
2.18	0.343	-2.52	22	0.020	-2.96	16.59	0.009

Actual T-Test Value 2.07

Figures 4.01 to 4.06

The following pages contain frequency graphs of the statements that showed a significant difference according to Chi-Square procedures. The differences are the percentages of the value of importance of each statement as compared by gender. A rating scale of low, moderate low, moderate, moderate high, and high is used as the value label.

Figure 4.01 summarizes the importance of "Checking for Understanding" as compared by male and female. The data suggest that females check for understanding more than males.

Figure 4.01 Summary of "Checking for Understanding" Compared by Gender

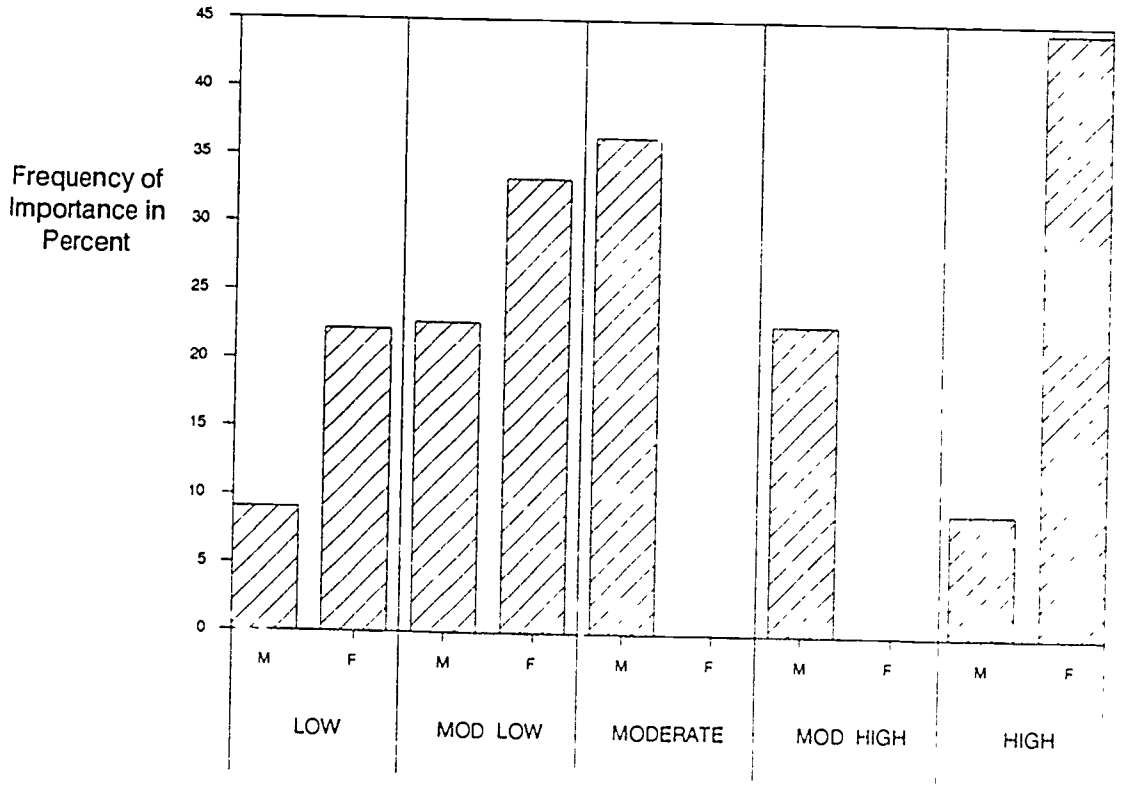


Figure 4.02 summarizes the importance of using "Praise in the Classroom" as compared by male and female. The data suggest that females are more likely to use "Praise in the Classroom" than males.

Figure 4.02 Summary of "Praise in the Class Room" Compared by Gender

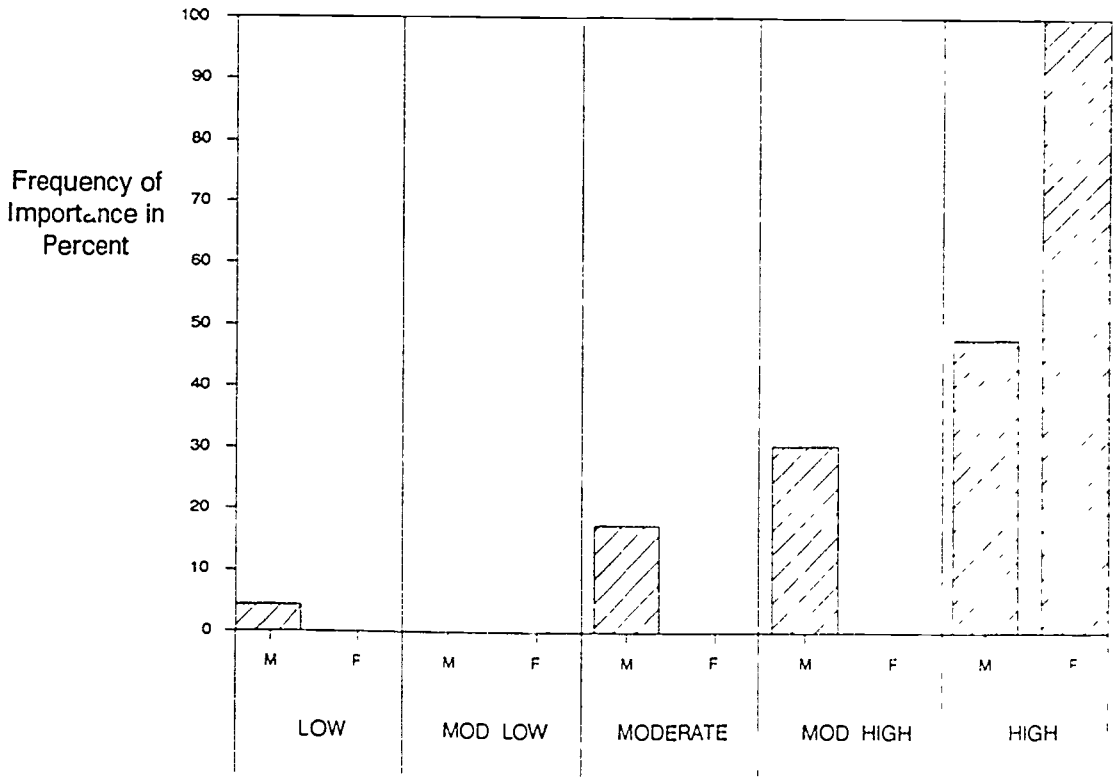


Figure 4.03 summarizes the importance of "Ignoring Showoffs" as compared by male and female. The data suggest that females are more likely to "Ignore Showoffs" than males.

Figure 4.03 Summary of "Ignoring Showoffs" Compared by Gender

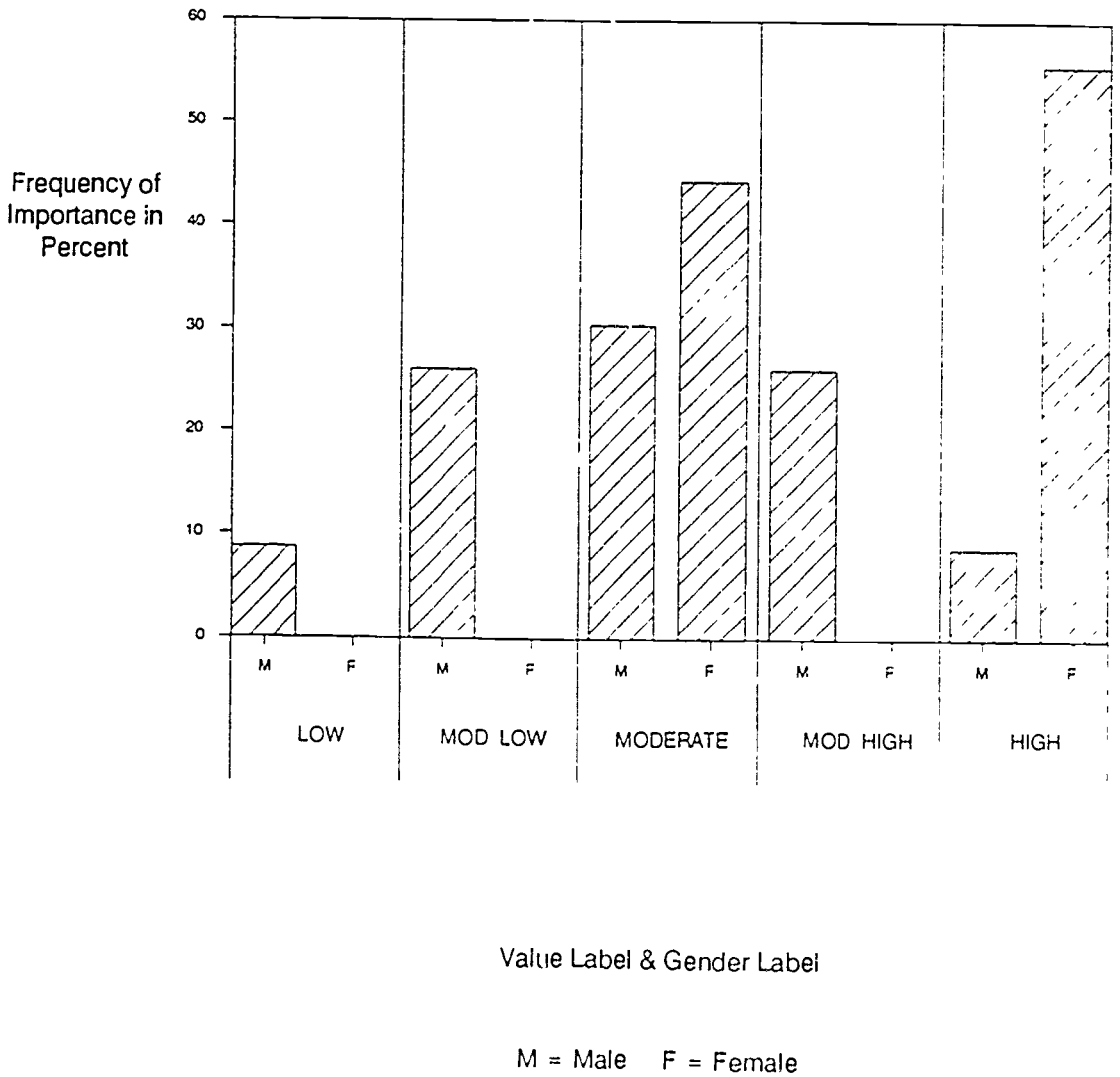


Figure 4.04 summarizes the importance of "Providing a Peer Tutor" as compared by male and female. The data suggest that females are more likely to "Provide Peer Tutors" than males.

Figure 4.04 **Summary of "Providing Peer Tutor" Compared by Gender**

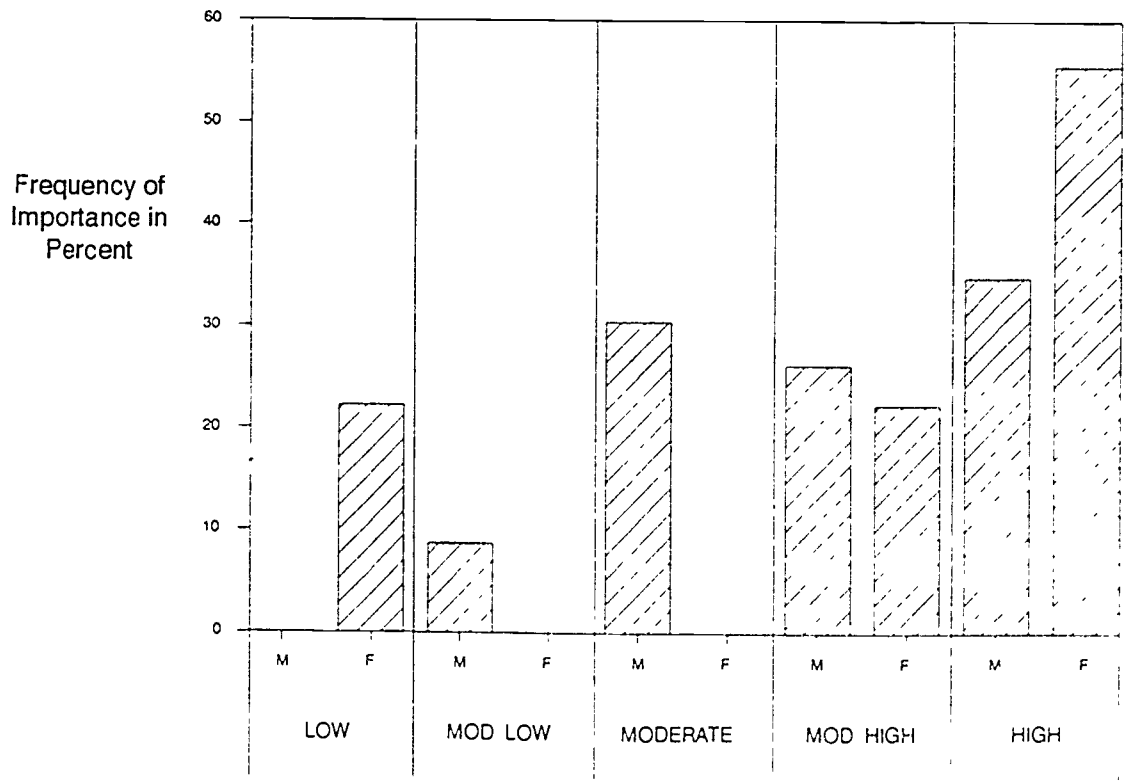


Figure 4.05 summarizes the importance of "Student Response to Rewards" as compared by male and female. The data suggest that females are more likely to value "Student Response to Rewards" than males.

Figure 4.05 **Summary of "Student Response to Rewards" Compared by Gender**

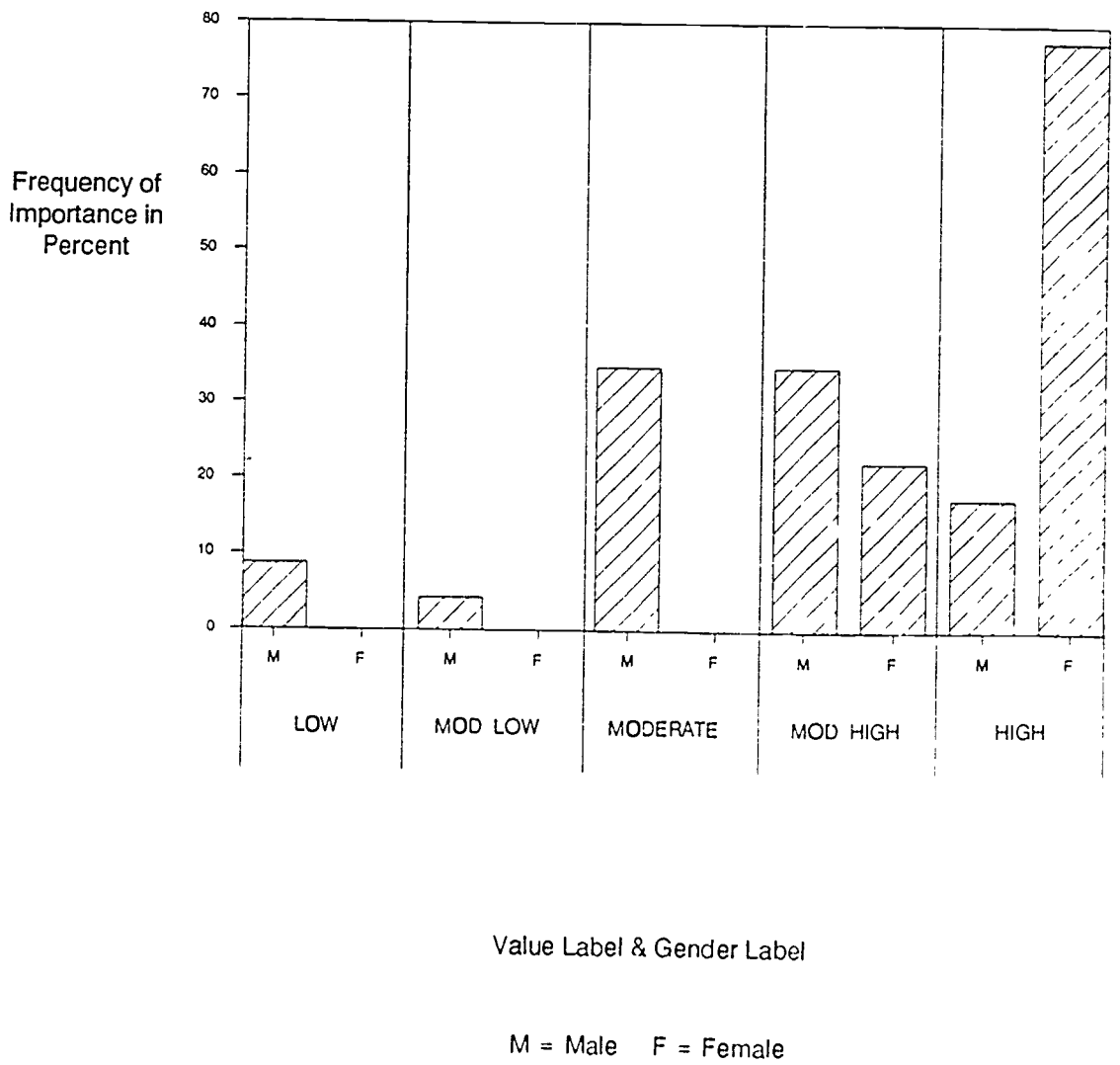


Figure 4.06 summarizes the importance of"Students Retaining Information" as compared by male and female. The data suggest that females are more likely to value "Students Retaining Information" than males.

Figure 4.06 Summary of "Students Retaining Information" Compared by Gender

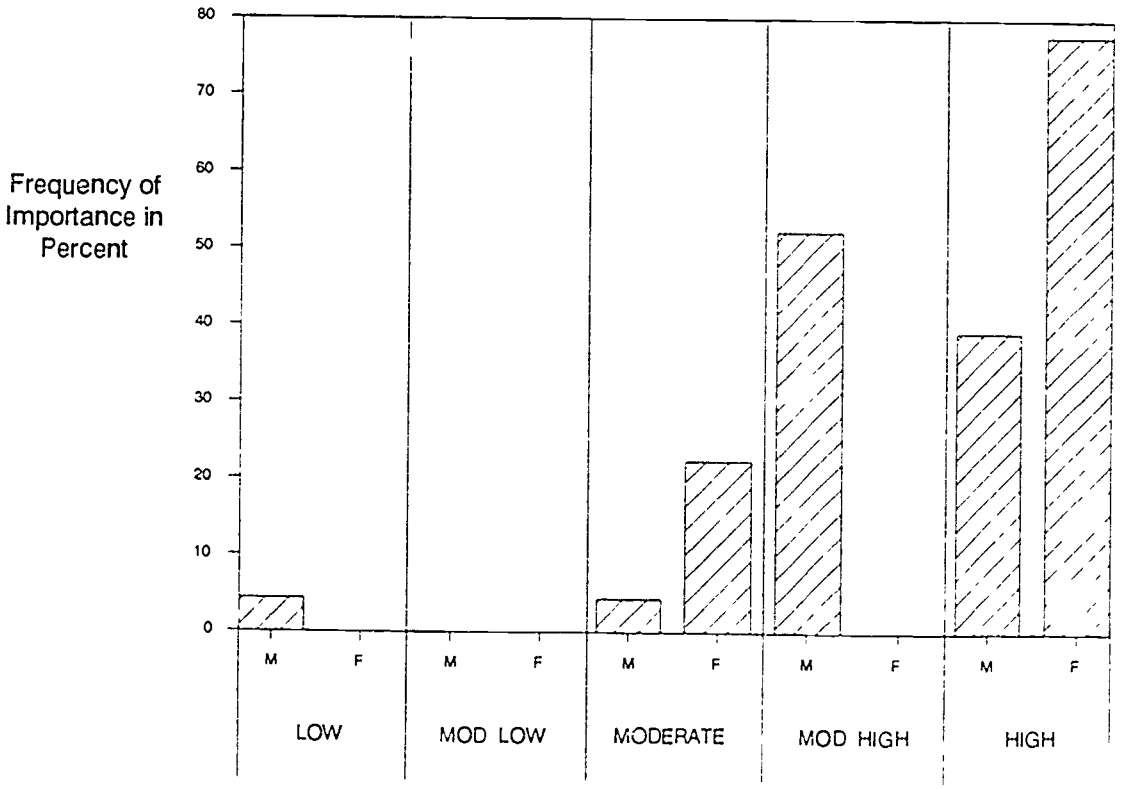


Figure 4.07

The following page contains frequency graphs of the use of the given statements that showed a significant difference according to Chi-Square procedures. The differences are the frequency in which the use of the said statement increased, decreased, or had no apparent change because of ITIP training. Gender has also been used as a comparison.

Figure 4.07 summarizes the increase, decrease, or no change in the "Use of Set Induction" as compared by male and female. The data suggest that males are more likely to have an increase in use of "Set Induction" than females.

Figure 4.07 Summary of "Set Induction." Compared by Gender

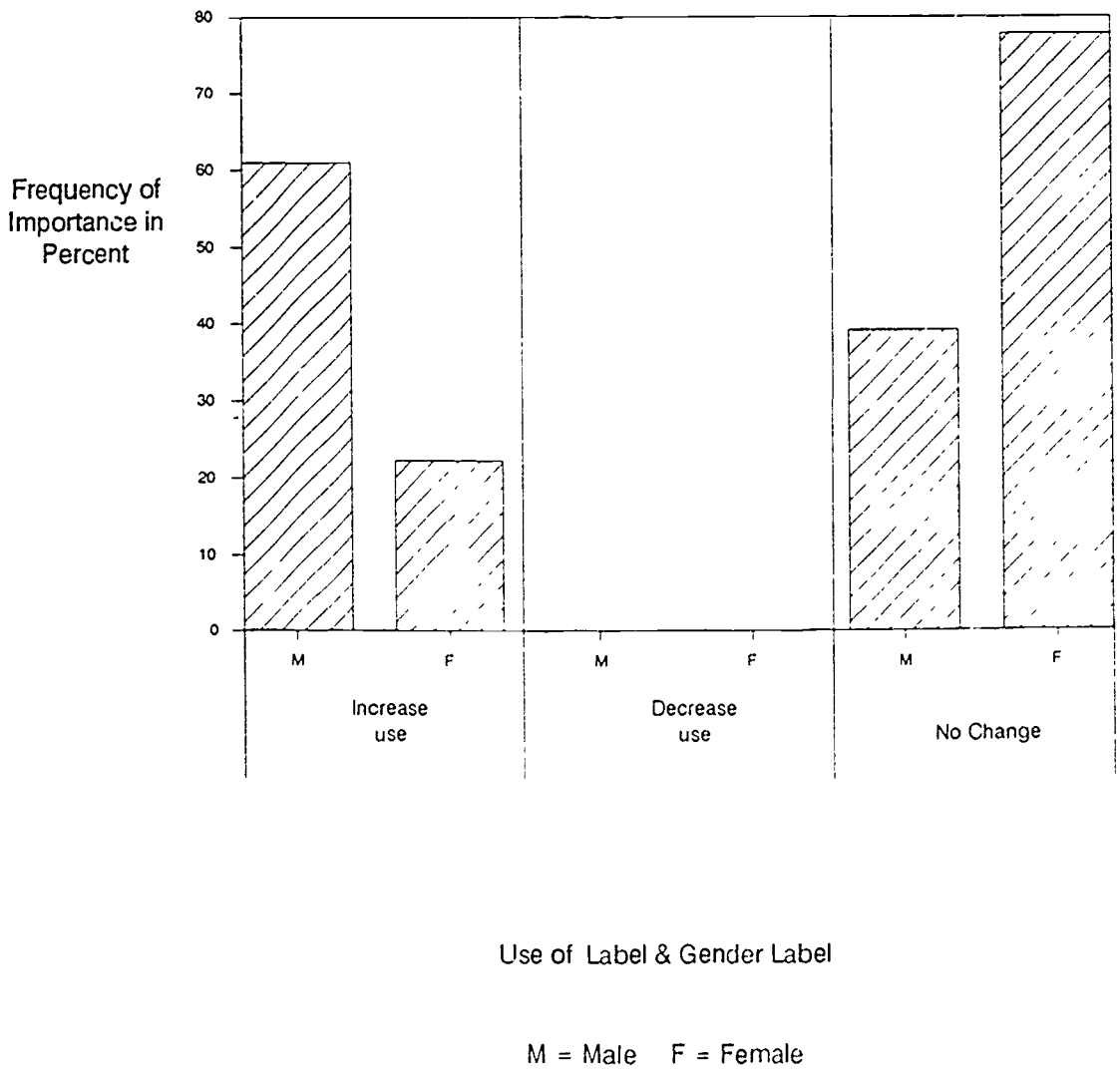
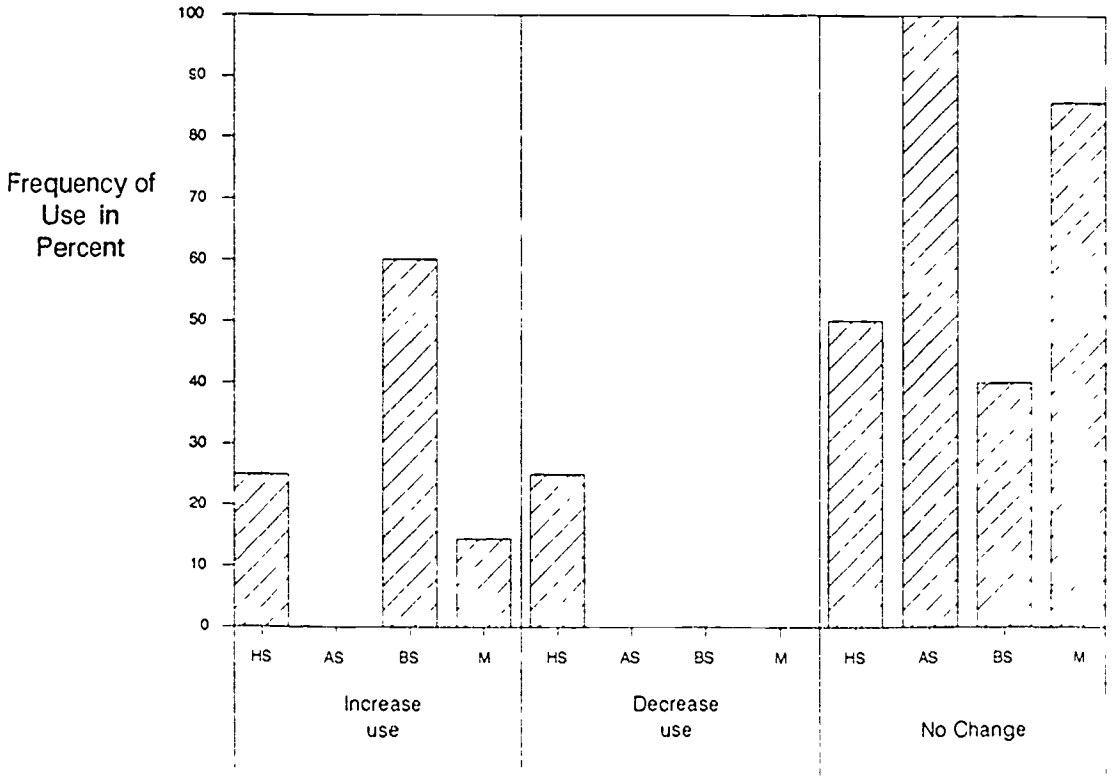


Figure 4.08

The following page contains a frequency graph of the statements that showed a significant difference according to Chi-Square procedures. The differences are the frequency in which the use of the said statement increased, decreased, or had no apparent change because of ITIP training. This graph is compared by degrees held.

Figure 4.08 summarizes the frequency of use of "Students Spend Quality Time on Task" compared to degree held. The data suggest that there was a 25% decrease in the use of "Students Spend Quality Time on Task."

Figure 4.08 Summary of "Students Spend Quality Time on Task" As compared to Degree



Figures 4.09 to 4.16

The following pages contain frequency graphs of the statements that showed a significant difference according to Chi-Square procedures. The difference is the percent of the value of importance of each statement as compared by the degrees held. A rating scale of low, moderate low, moderate, moderate high, and high is used as the value label.

Figure 4.09 summarizes the importance of "Selecting Students to Answer Systematically" as compared by the degree held. The data suggest that respondents with higher degrees rate "Selecting Student to Answer Systematically" as more important than respondents with lower degrees.

Figure 4.09 Summary of "Selecting Students to Answer Systematically" Compared by Degree held

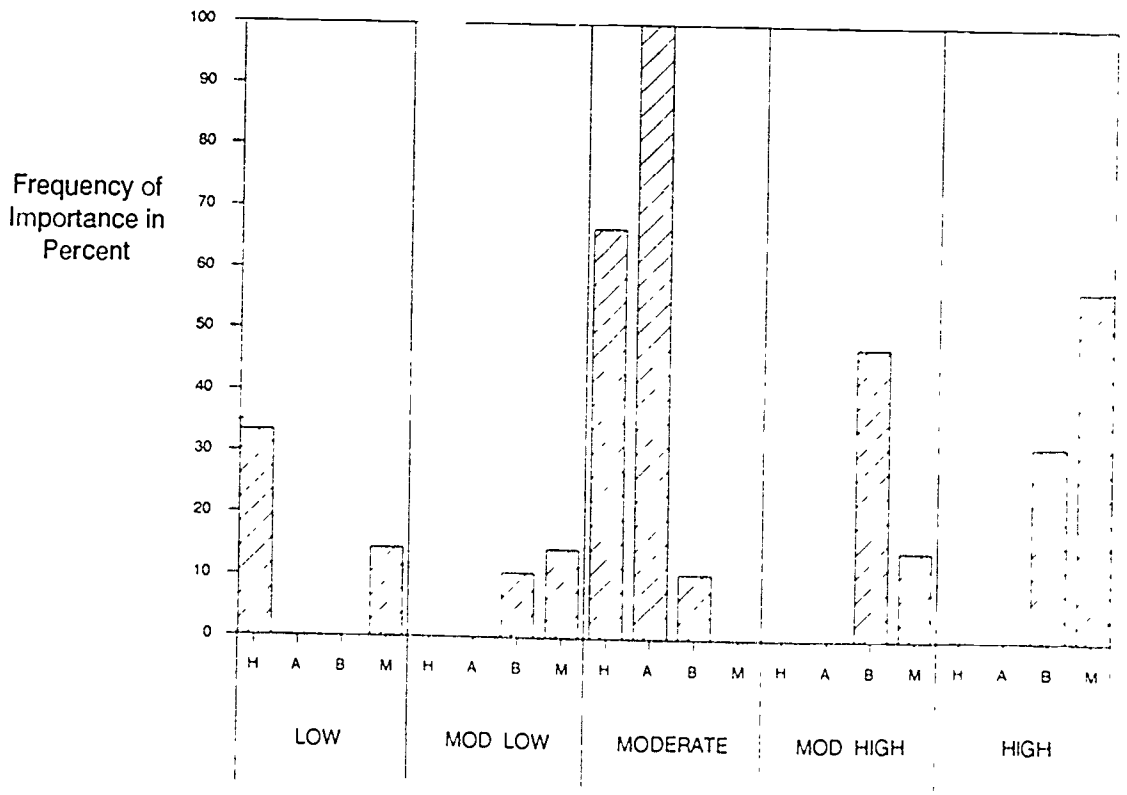
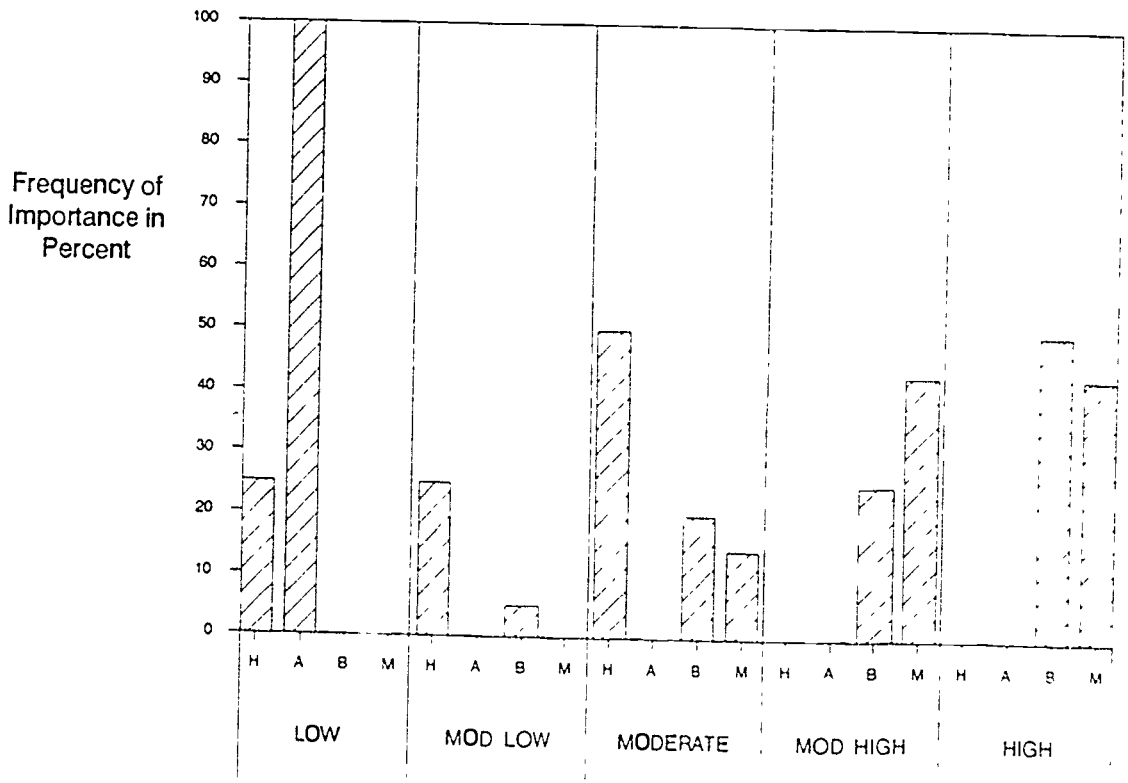


Figure 4.10 summarizes the importance of "Providing Peer Tutoring" as compared by the degree held. The data suggest that respondents with higher degrees rate "Providing Peer Tutor" as more important than respondents with lower degrees.

Figure 4.10 **Summary of "Providing Peer Tutoring" Compared by Degree held**

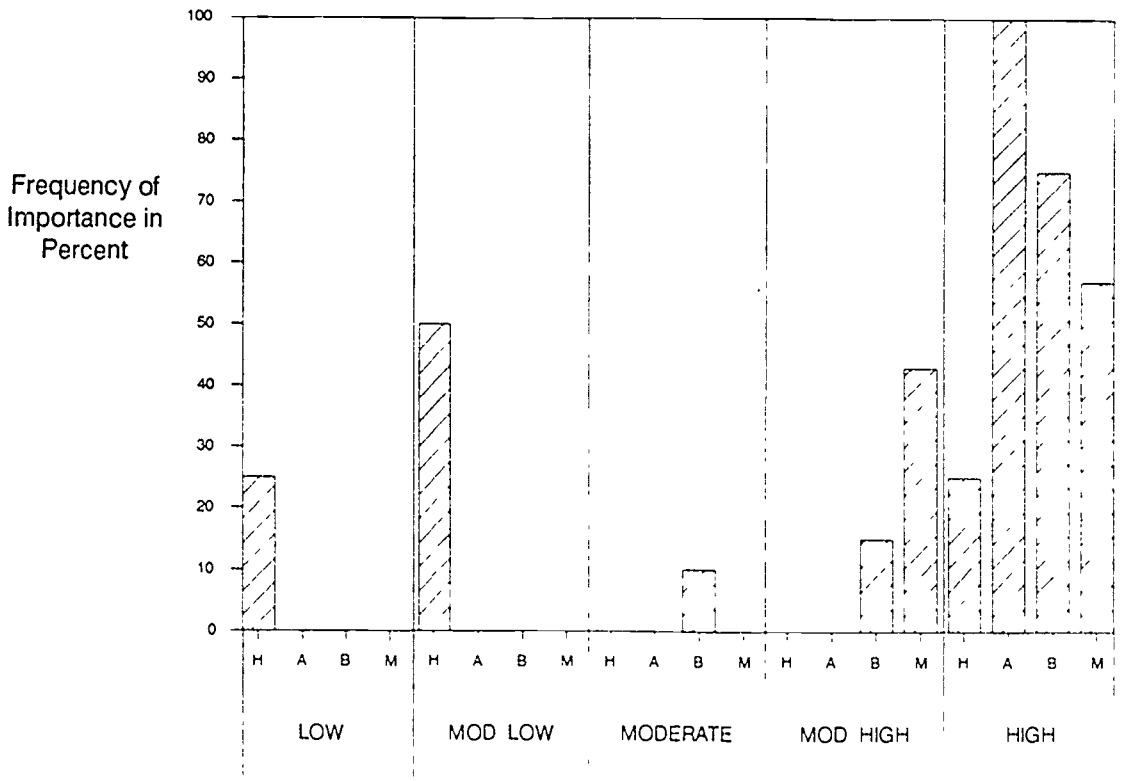


Value Label & Degree Label

H = High School Diploma
A = Associates Degree
B = Bachelors Degree
M = Masters Degree

Figure 4.11 summarizes the importance of Using "Examples" as compared with the degree held. The data suggest that respondents with higher degrees rated "Using Examples" more important than respondents with lower degrees.

Figure 4.11 Summary of Importance of Using "Examples" Compared by Degree held

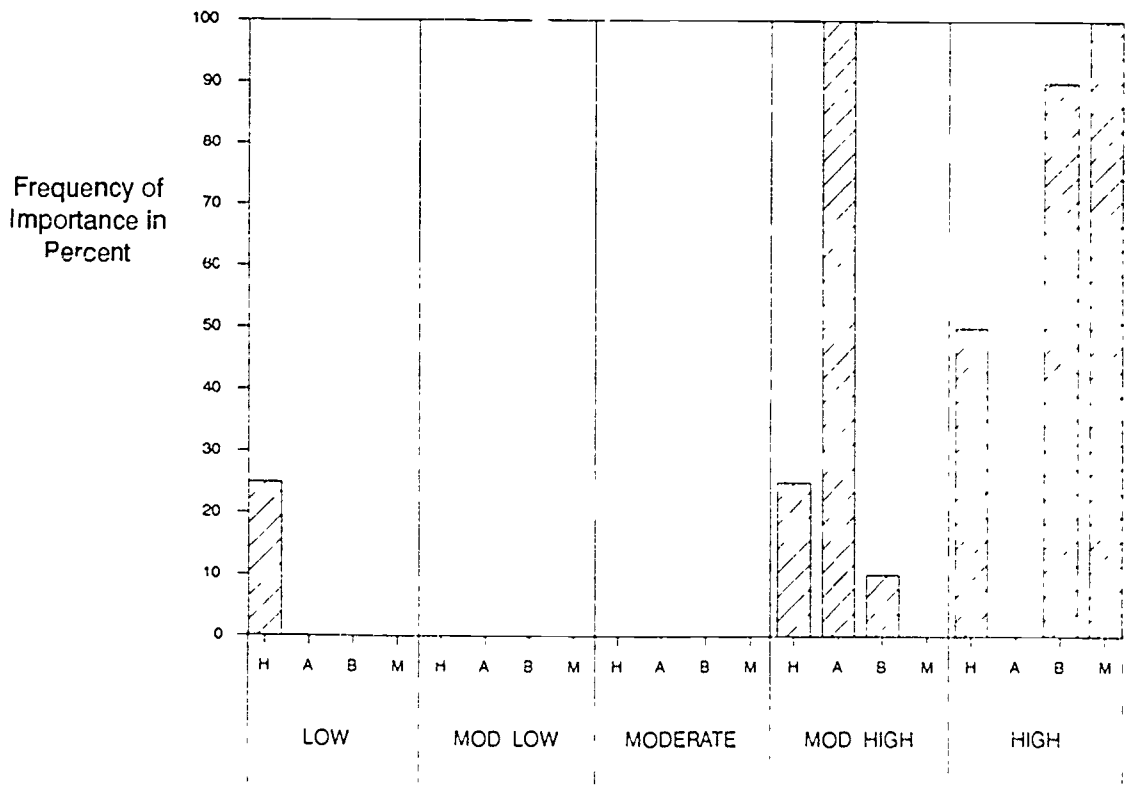


Value Label & Degree Label

H = High School Diploma
A = Associates Degree
B = Bachelors Degree
M = Masters Degree

Figure 4.12 summarizes the importance of "Making Lessons Meaningful" as compared by the degree held. The data suggest that 25% of the respondents felt "Making Lessons Meaningful" was unimportant.

Figure 4.12 Summary of Importance of " Making Lessons Meaningful" Compared by Degree held



Value Label & Degree Label

H = High School Diploma
A = Associates Degree
B = Bachelors Degree
M = Masters Degree

Figure 4.13 summarizes the importance of "Writing Directions on the Board" as compared with the degree held. The data suggest that respondents with higher degrees rated "Writing Directions on the Board" as more important than respondents with lower degrees.

Figure 4.13 Summary of Importance of "Writing Lessons on the Board" Compared by Degree held

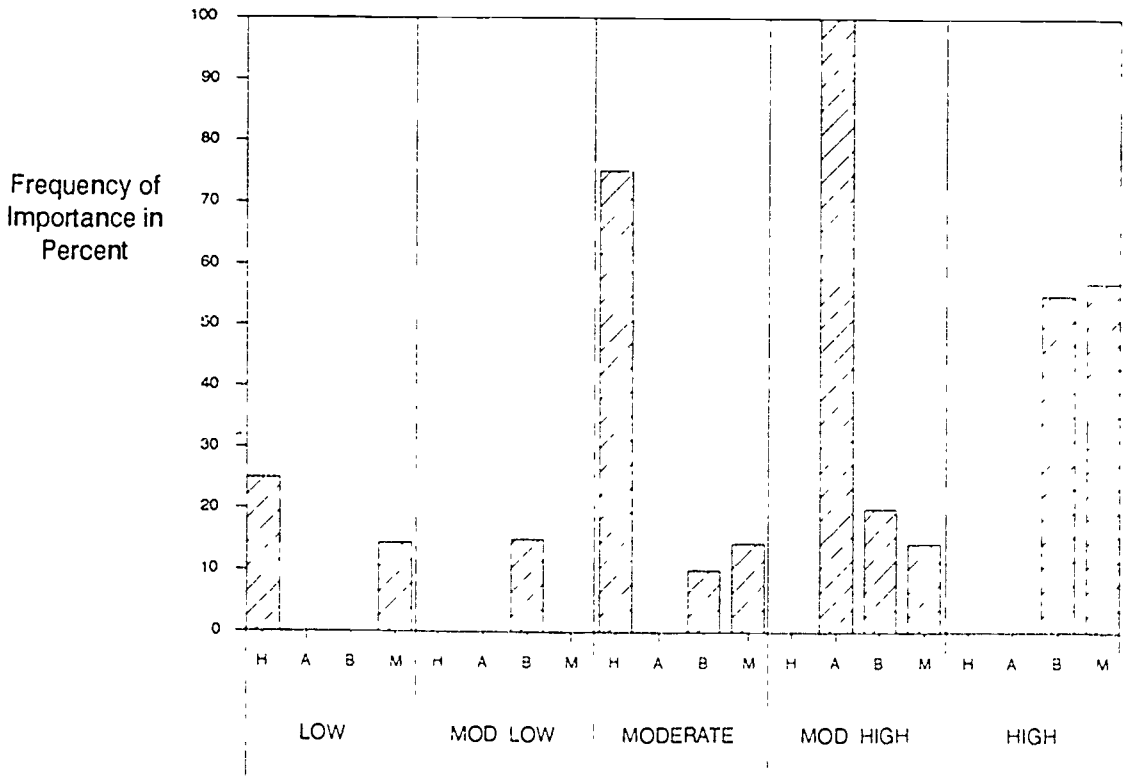
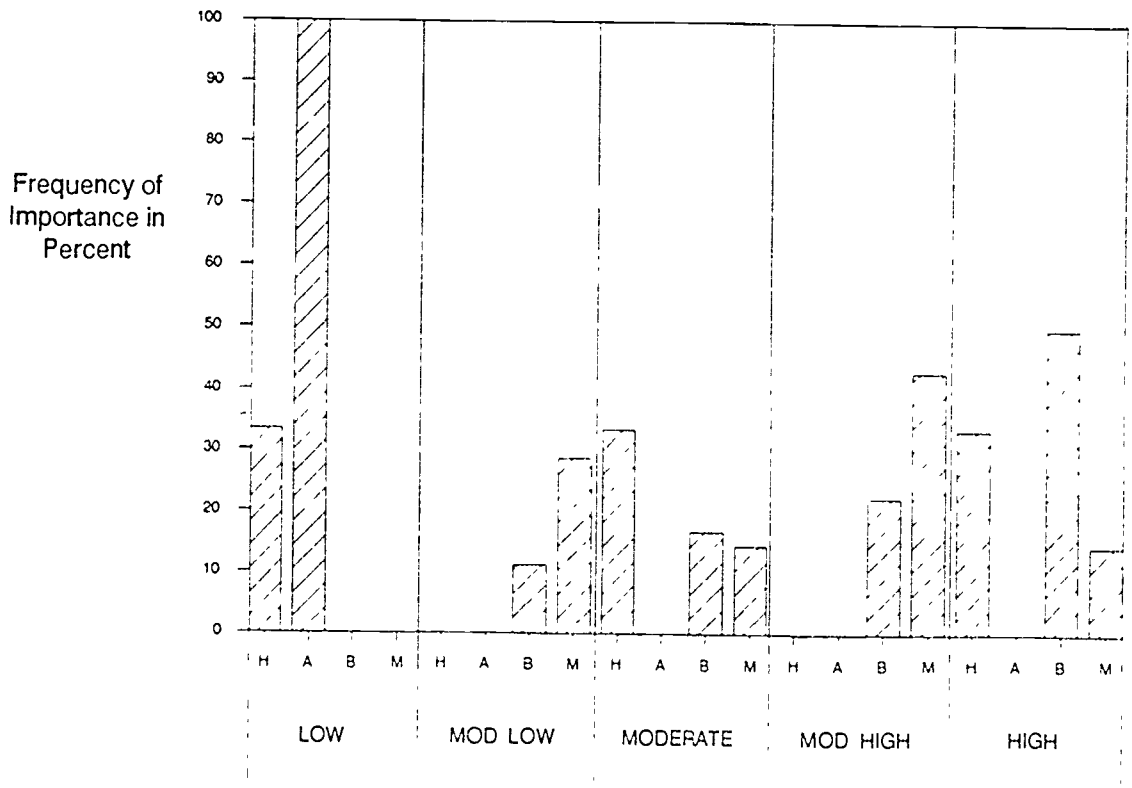


Figure 4.14 summarizes the importance of "Low Achievers Answer Question" as compared with the degree held. The data suggest that respondents with higher degrees rated "Low Achievers Answer Questions" as more important than respondents with lower degrees.

Figure 4.14 Summary of Importance of "Low Achievers Answering Questions" Compared by Degree held



Value Label & Degree Label

H = High School Diploma
A = Associates Degree
B = Bachelors Degree
M = Masters Degree

Figure 4.15 summarizes the importance of "Student Translating Concepts Into Own Words" as compared to the degree held. The data suggest that respondents with higher degrees rated "Student Translating Concepts Into Own Words" more important than respondents with lower degrees.

Figure 4.15 Summary of Importance of "Student Translating Concepts into Own Words" Compared by Degree held

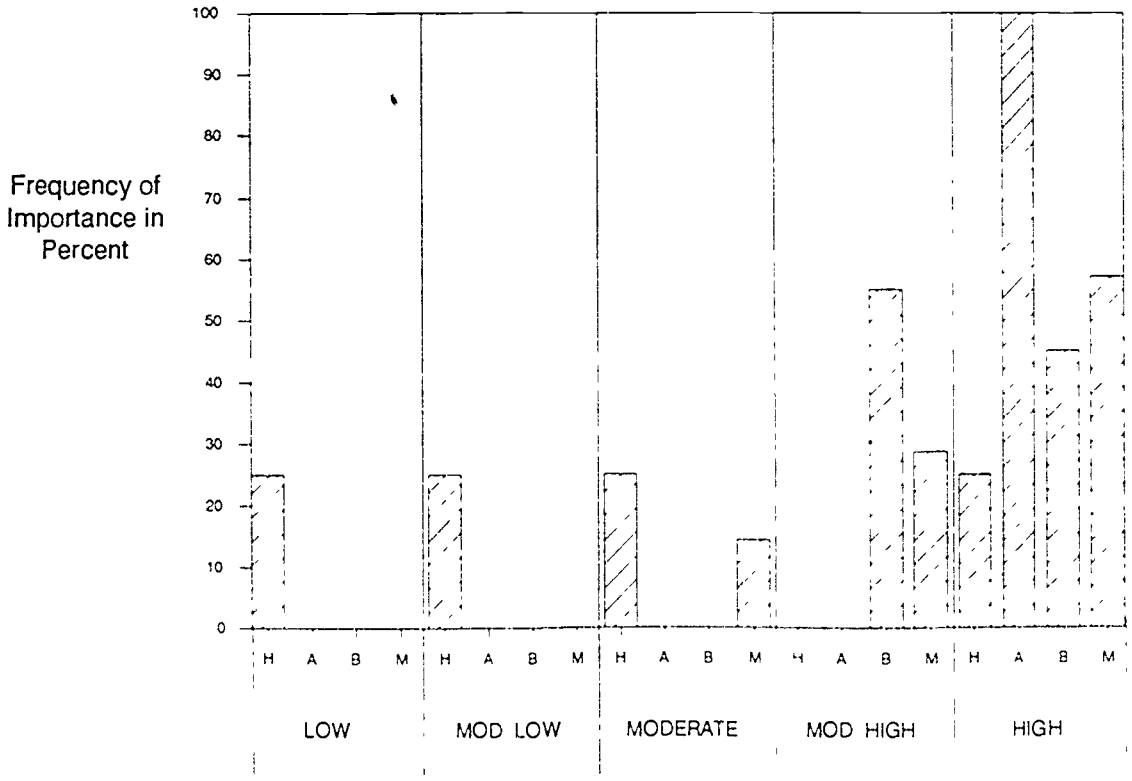


Figure 4.16 summarizes the importance of "Student Spending Quality Time on Task" as compared with the degree held. The data suggest that respondents with higher degrees rated "Spending Quality Time on Task" more important than those with lower degrees.

Figure 4.16 **Summary of Importance of "Student Spending Quality Time on Task" Compared by Degree held**

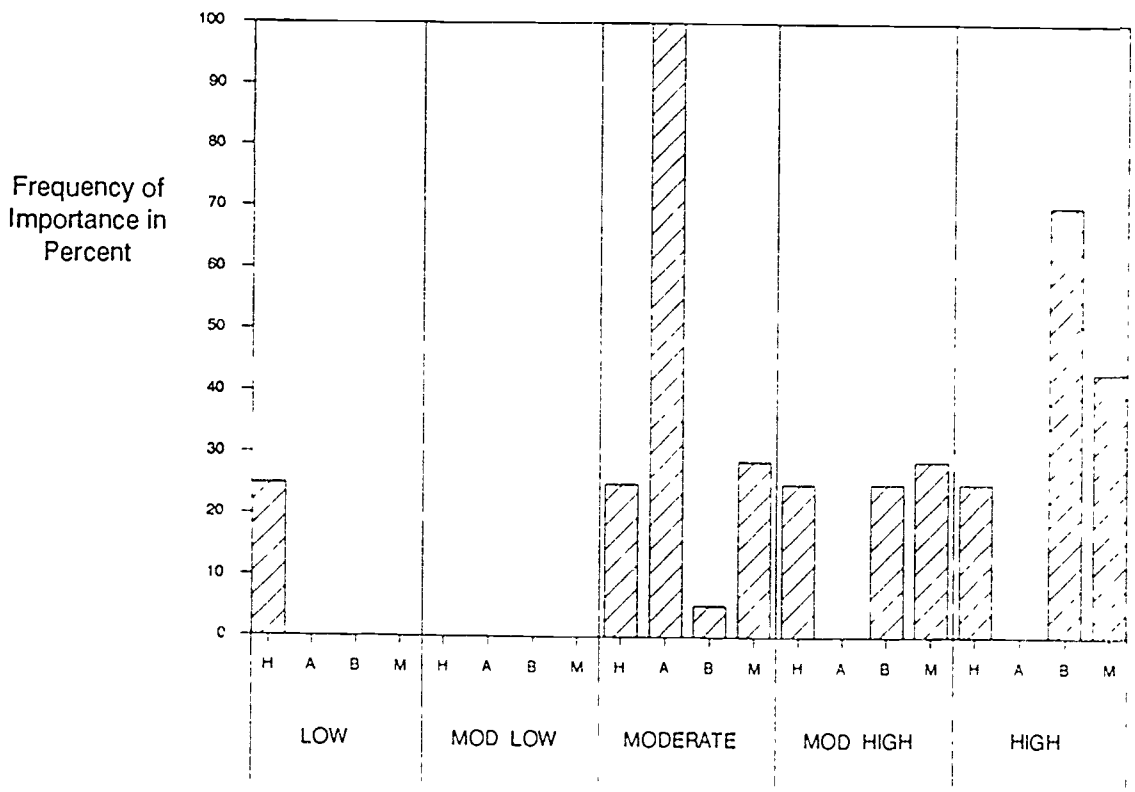
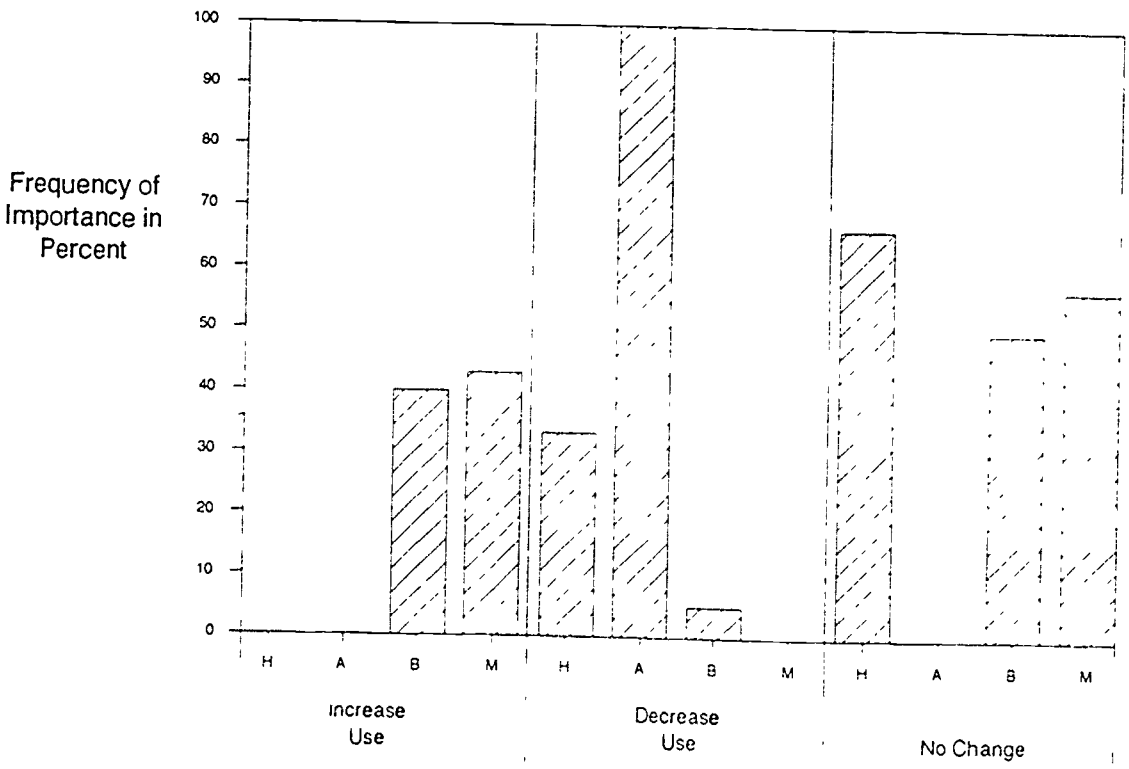


Figure 4.17

The following page contains a frequency graph of the use of the given statements that showed a significant difference according to Chi-Square procedures. The differences are the frequency in which the use of the said statement increased, decreased, or had no apparent change after ITIP training. These graphs are also compared by the degrees held.

Figure 4.17 summarizes the use of "Selecting Students to Answer in a Systematic Way" as compared by the degree held. The data suggest that there is a decrease in use of "Selecting Students to Answer in a Systematic Way" by respondents holding lower degrees.

Figure 4.17 Summary of "Selecting Students to Answer in a Systematic Way" Compared by Degree held

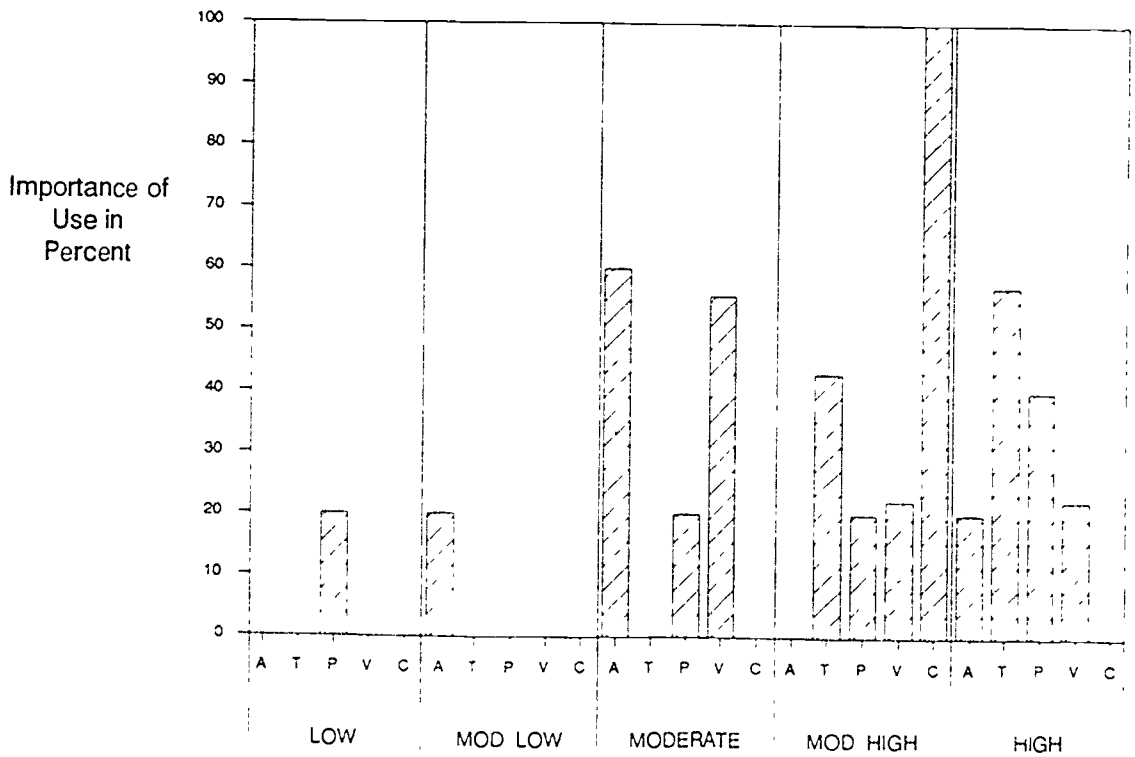


Figures 4.18 and 4.19

The following pages contain frequency graphs of the statements that showed a significant difference according to Chi-Square procedures. The differences are the percentages of the value of importance of each statement as compared by the certificate held. A rating scale of low, moderate low, moderate, moderate high, and high is used as the value label.

Figure 4.18 summarizes the importance of "Checking Difficulty Level" as compared with the certificate held. The data suggest that respondents with higher certificates rated "Checking Difficulty Level" higher than respondents with lower certificates.

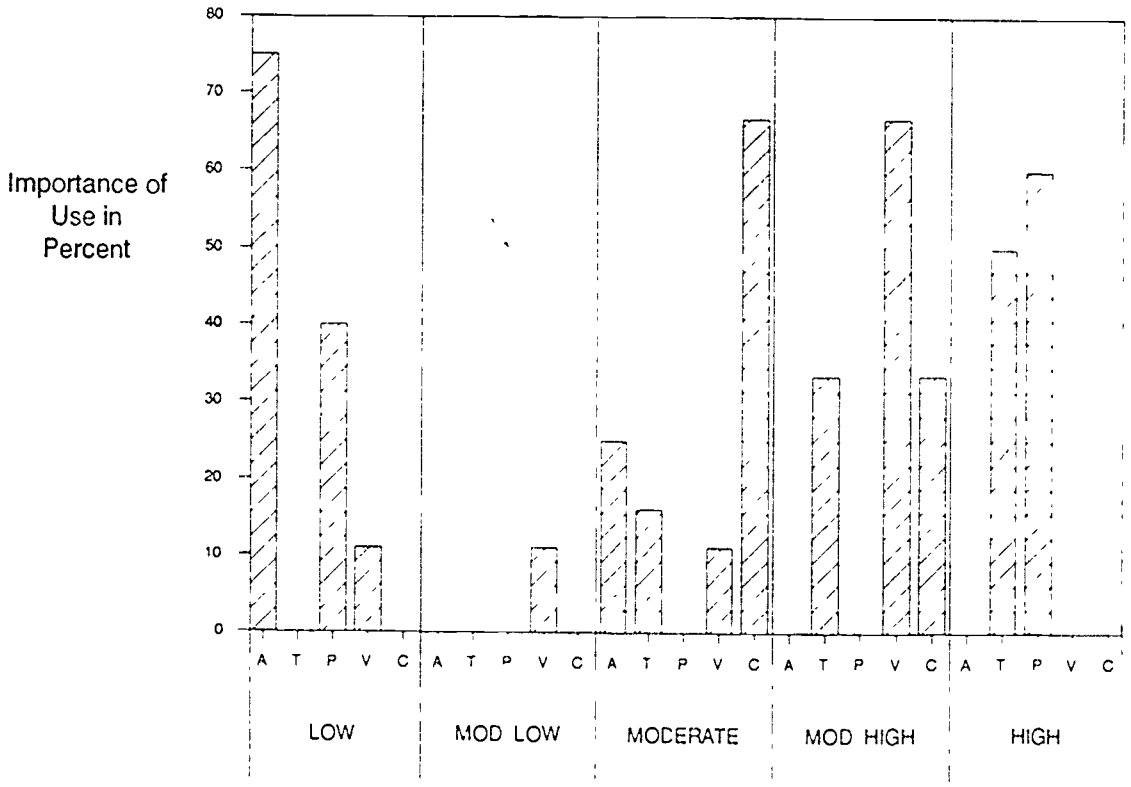
Figure 4.18 Summary of Importance of "Checking Difficulty Level" As Compared by Certificate held



A = Annual Authorization
T = Temporary Vocational Authorization
P = Secondary Provisional Certificate
V = Vocational Authorization
C = Secondary Continuing Certificate

Figure 4.19 summarizes the importance of "Have Better Grades on Homework" as compared with the certificate held. The data suggest that the respondents with lower certificates responded lower as to the importance of "Having Better Grades."

Figure 4.19 Summary of "Have Better Grades on Homework" As Compared by Certificate held



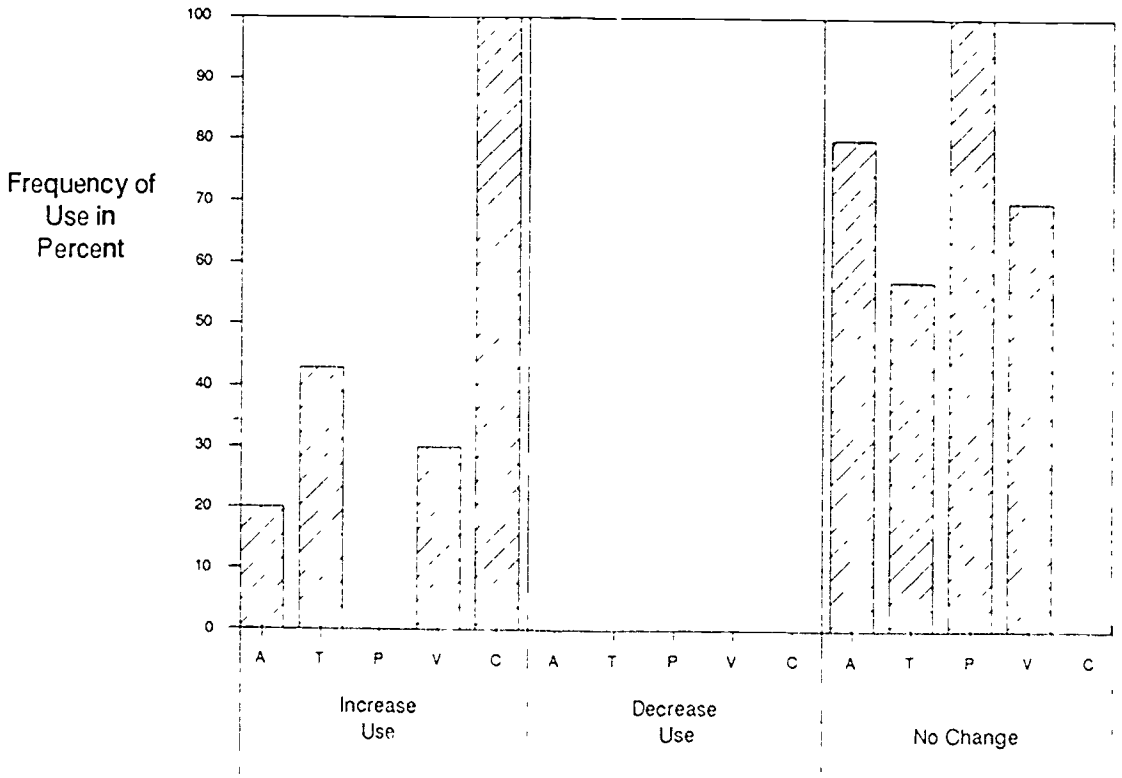
A = Annual Authorization
T = Temporary Vocational Authorization
P = Secondary Provisional Certificate
V = Vocational Authorization
C = Secondary Continuing Certificate

Figures 4.20 to 4.22

The following pages contain frequency graphs of the statements that showed a significant difference according to Chi-Square procedures. These differences are the percent of the use showing an increase or decrease in use or no change because of ITIP training. Each statement is also compared by the type of teaching certificate held.

Figure 4.20 summarizes the use of "Use of Praise in the Classroom" as compared with the certificate held. The data suggest that the largest increase in"Use of Praise" was by those respondents with a Secondary Continuing Certificate.

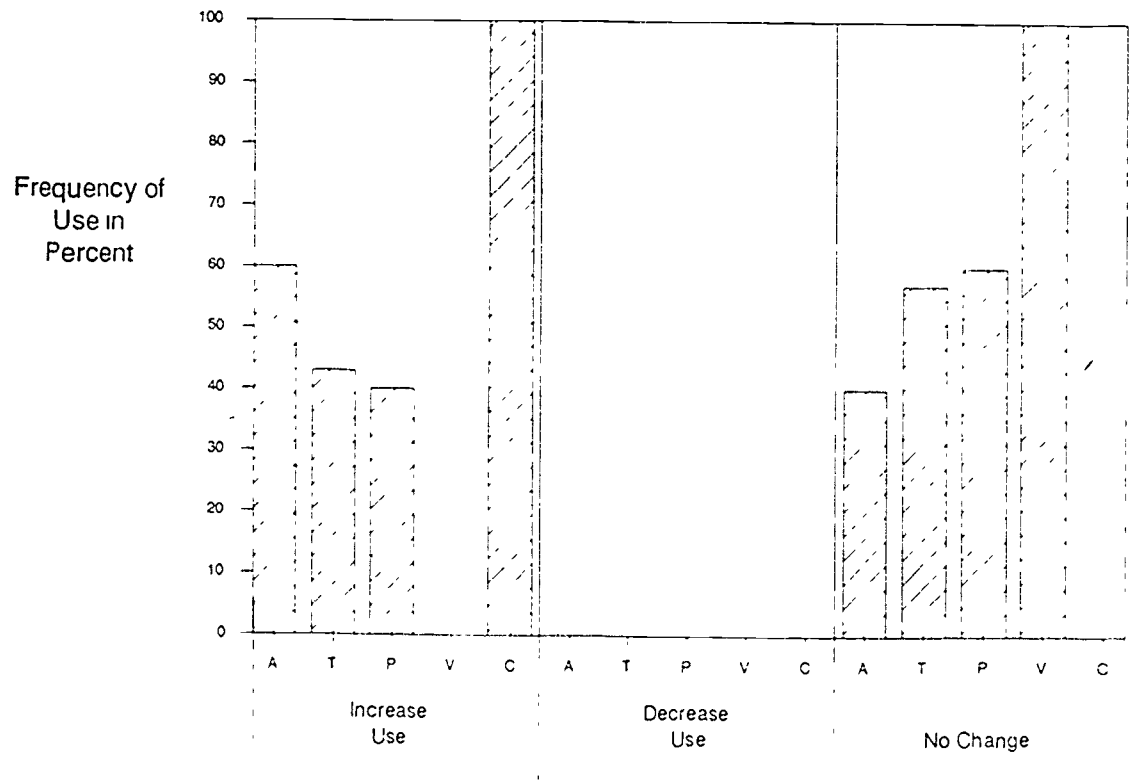
Figure 4.20 Summary of "Use of Praise in the Classroom" As Compared by Certificate held



A = Annual Authorization
T = Temporary Vocational Authorization
P = Secondary Provisional Certificate
V = Vocational Authorization
C = Secondary Continuing Certificate

Figure 4.21 summarizes the use of "Make Lessons Meaningful" as compared with the certificate held. The data suggest that the largest increase in "Making Lessons Meaningful" was by those with a Secondary Continuing Certificate.

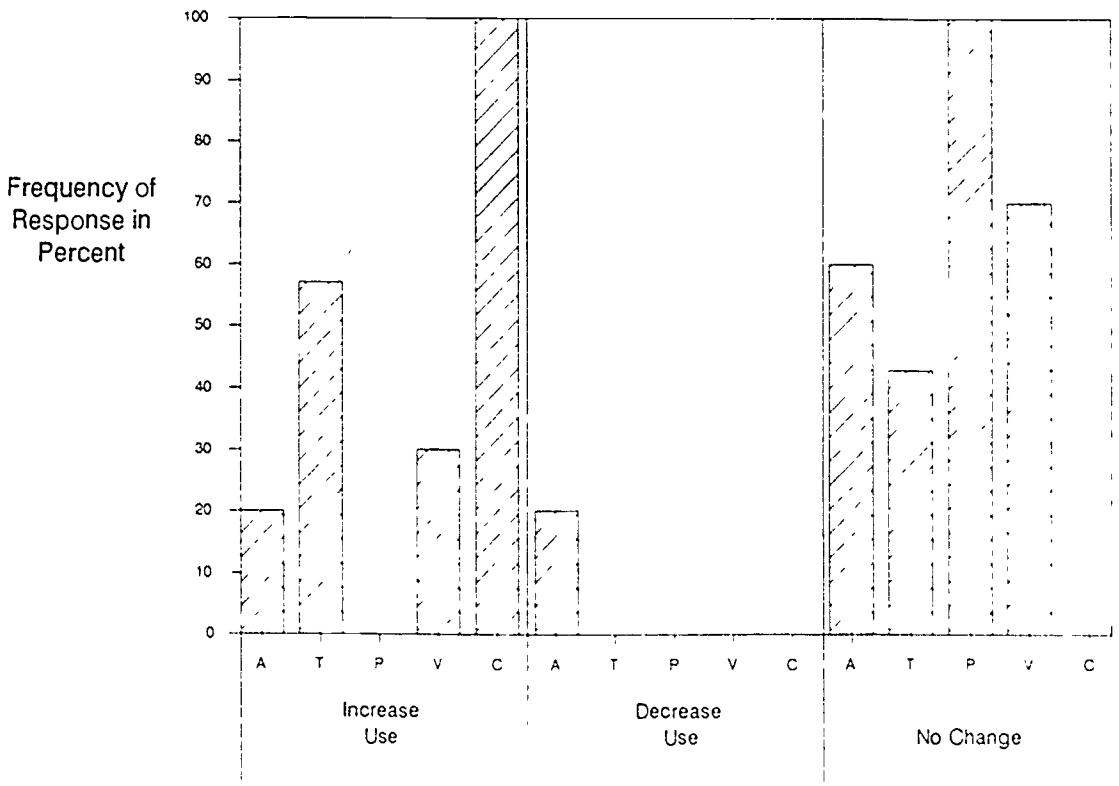
Figure 4.21 **Summary of "Making Lessons Meaningful" As Compared by Certificate held**



A = Annual Authorization
T = Temporary Vocational Authorization
P = Secondary Provisional Certificate
V = Vocational Authorization
C = Secondary Continuing Certificate

Figure 4.22 summarizes the use of "Responds to Praise" as compared with the certificate held. The data suggest that 20% of the respondents felt that students didn't respond to praise.

Figure 4.22 **Summary of "Resonds to Praise" As Compared by Certificate held**



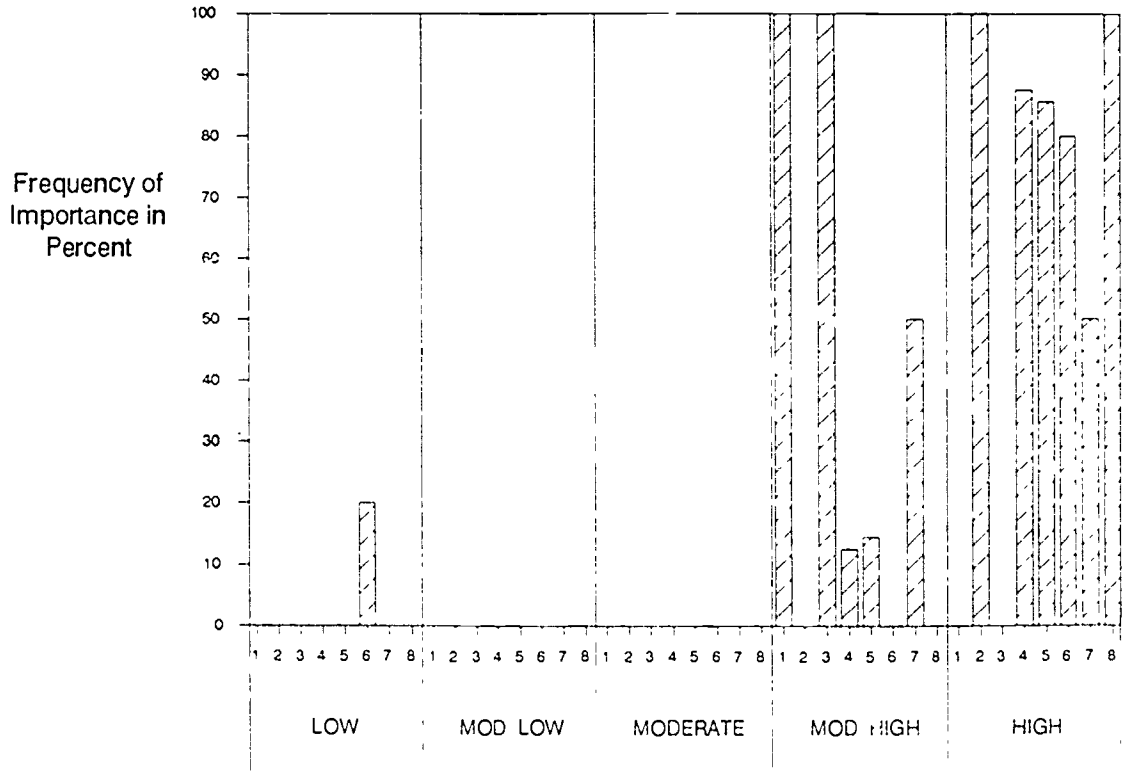
A = Annual Authorization
T = Temporary Vocational Authorization
P = Secondary Provisional Certificate
V = Vocational Authorization
C = Secondary Continuing Certificate

Figure 4.23

The following page contains a frequency graph of the statements that showed a significant difference according to Chi-Square procedures. These differences are the percent of importance of each statement as rated low, moderate low, moderate, moderate high, or high. Each statement is also compared by age.

Figure 4.23 summarizes the importance of "Create an Environment for Success of Students" as compared with age of respondents. The data suggest that all but 20% of the respondents consider a successful environment from moderate high to high.

Figure 4.23 **Summary of "Create an Environment for Succers of Students" Compared with Age of Respondents**



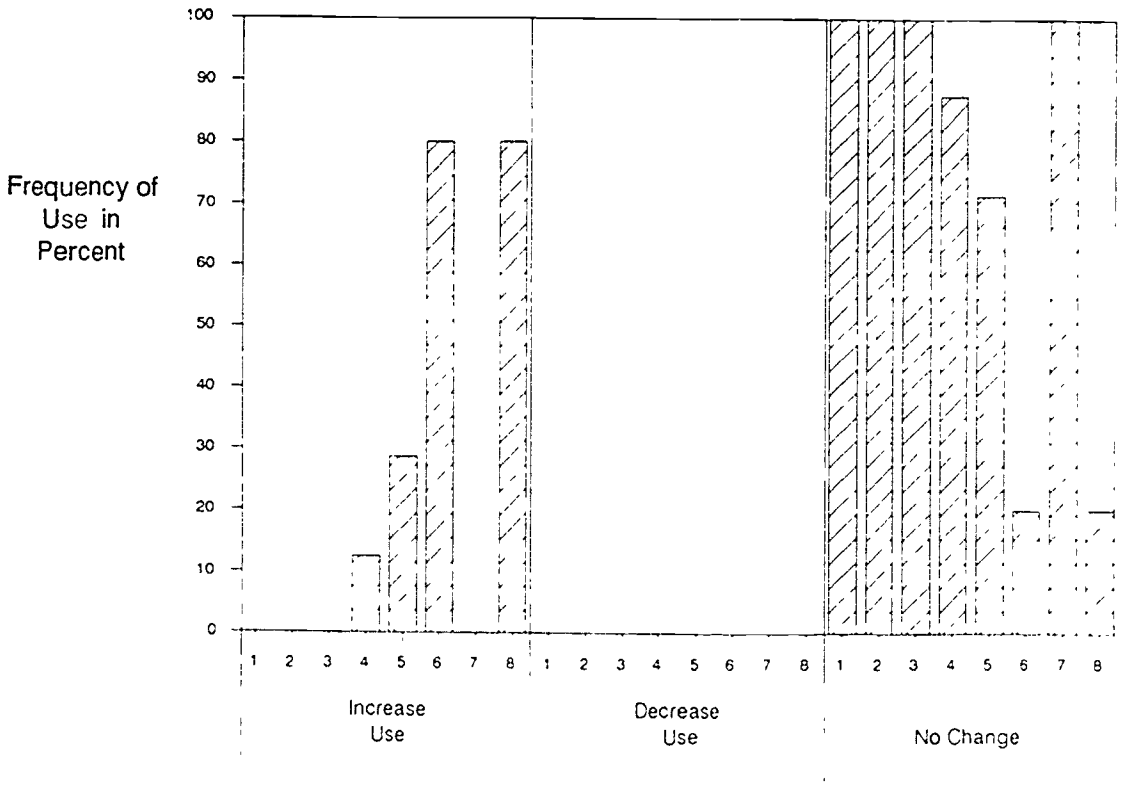
1 = 20 - 25 years of age
2 = 26 - 30 yrs
3 = 31 - 35 yrs
4 = 36 - 40 yrs
5 = 41 - 45 yrs
6 = 46 - 50 yrs
7 = 51 - 55 yrs
8 = 56 - 60 yrs

Figures 4.24 to 4.25

The following pages contain frequency graphs of the statements that showed a significant difference according to Chi-Square procedures. The differences are the percent of the use showing the increase or decrease in use or no change because of ITIP training. Each statement is also compared by age.

Figure 4.24 summarizes the use of "Move Close to Students Who Are Disruptive (Proximity)" as compared with age. The data suggest that the greatest increase in use was the ages from 46-50 and 56-60.

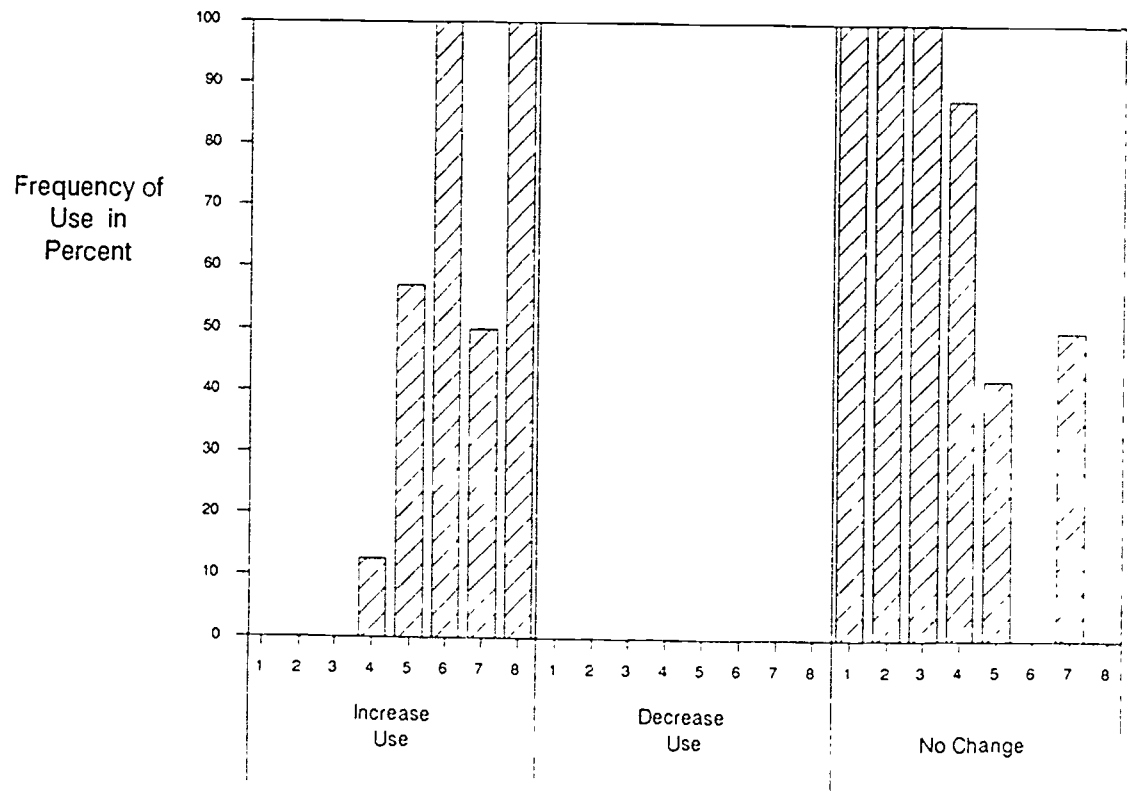
Figure 4.24 Summary of "Move Close to Student Who are Disruptive (Proximity)" Compared with Age of Respondents



1 = 20 - 25 years of age
2 = 26 - 30 yrs
3 = 31 - 35 yrs
4 = 36 - 40 yrs
5 = 41 - 45 yrs
6 = 46 - 50 yrs
7 = 51 - 55 yrs
8 = 56 - 60 yrs

Figure 4.25 summarizes the use of "Providing Closure" as compared with age. The data suggest that the greatest increase of use is among those from 46-50 and 56-60.

Figure 4.25 Summary of the Use of "Providing Closure" As Compared with Age of Respondents



1 = 20 - 25 years of age
2 = 26 - 30 yrs
3 = 31 - 35 yrs
4 = 36 - 40 yrs
5 = 41 - 45 yrs
6 = 46 - 50 yrs
7 = 51 - 55 yrs
8 = 56 - 60 yrs

Summary of Analysis

The presentation of the data in Chapter IV follows a format of: 1) presentation and interpretation of the applicable date received via survey, 2) charts and comparisons, 3) frequency graphs, 4) summaries of T-Test, and 5) a summary section.

Survey Instrument

The survey instrument was developed by the author and reviewed by a panel of experts. The questionnaire contained demographic information and 44 training skills that were given values of importance and use of. The response rate of the survey was 46.3% which was adequate for analysis. There were no surveys returned by administrators, due to a concern that they apparently did not feel they could respond accurately to the instrument.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The researcher's purpose of this study was to point out a positive or negative value of the usage and importance of the ITIP training so that school districts would know whether or not to offer more ITIP training to their teaching staff.

The basic research questions to be answered by this study were:

1. What classroom instructional skills were perceived to increase by teachers in the study?

2. Are there differences between teachers and administrators in their perceptions of teacher changes in instructional practices?

3. What changes do teachers see in student achievement as a result of using ITIP in the classroom?

4. Are there differences among demographic groups in teacher perceptions of student achievement and instructional practices?

For summary the data indicates that:

1. What classroom instructional skills were perceived to increase by teachers in the study?

   - The results show some increase in skill uses in all areas. The increase was from 6.3% to 68.8% among the respondents.

   - The majority of the respondents reported "no change" in the use of the following practices:

     1. Promote active participation of students
     2. Monitor the learning process
     3. Adjust your teaching to the pace of the students
     4. Check for understanding by using signals
     5. Involve most of the students most of the time
     6. Use of praise in the classroom
     7. Give immediate knowledge of results
     8. Check for level of difficulty

9. Lower level of concern
10. Lower level of concern for test
11. Do a task analysis for each objective
12. Move close to students who are disruptive (Proximity)
13. Use Bloomt axonomy
14. Improvement of time on task
15. Teach to an objective
16. Ignore students who are showing off
17. Select students to answer questions (in a systematic way)
18. Provide for peer tutoring
19. Create a positive self-concept
20. Use extrinsic rewards
21. Say good morning and/or good bye to students
22. Provide closure
23. Provide short practice for past learning
24. Use lots of examples
25. Make lessons meaningful
26. Write directions on the board

- The majority of respondents reported an "increase" in the following practices:

  1. Use wait time
  2. Create a level of concern
  3. Create an environment of success of the students

- Eighteen and eight tenths percent of the respondents reported a "decrease" in the factor "ignore students who show off."

2. Are there differences between teachers and administrators in their perceptions of teacher changes in instruction practices?

   - The results show only 1 respondent in the administrator category, therefore, no comparisons could be drawn.

3. What changes do teachers use in student achievement as a result of using ITIP in the classroom?

   - The results show some increase in student achievement in all areas ranging from 17.2% to 60.0%.

   - The majority of the respondents reported an "increase" in the following practices:

     1. Have better answers to questions
     2. Responds to success

- The majority of the respondents reported "no change" in the use of the following student achievements:

  1. Have better grades on homework
  2. Turn in more homework
  3. Achieve higher test scores
  4. Responds to signals
  5. Pay attention longer
  6. Perform task quicker
  7. Of low achievement answer questions
  8. Retain information from one assignment or quiz to another
  9. Respond to praise
  10. Responds to reward
  11. Spends quality time on tasks

4. Are there differences among demographic groups in teacher perceptions of student achievement and instructional practices?

   - The comparisons were made between gender, by years of experience, by degree held, by certificate held, and by age.

   - The significant differences are as follows:

Group Compared	Number of Differences Within Groups
Gender	15
Years of Experience	2
Degree held	10
Certificate held	5
Age	3

In summary, it would appear that there are increases in the use of each training skill and each student achievement. Thus, any amount of increase to help students achieve success would certainly be rated as positive. Another positive suggestion of the data is that the higher the degree and the certificate held, the higher the rating and use of some of the skills such as: selecting students to answer systematically, providing peer tutor, using examples, making lessons meaningful, writing directions on the board, low achievers answer questions, students

translate concepts into own words, students spend quality time on task, checking for difficulty level, have better grades on homework, use praise in the classroom, and responds to praise.

Further factors of significant differences that the data suggest is that females are more likely to check for understanding. use praise in the classroom, ignore showoffs, provide peer tutors, value student response to rewards, value students retaining information, use extrinsic rewards, value having better grades on homework, value turning in more homework, value student response to praise, value student response to rewards, and value student response to success more than males.

The bottom line is that ITIP is a valid method of increasing student achievement. This study did suggest that the respondents are utilizing ITIP practices in the classroom to some degree.

Conclusions

1. The fact that several of the factors showed a decrease in use among some of the respondents would suggest that additional follow-up training might be beneficial.

2. The inability of administrators to complete the instrument suggest that administration probably need to spend more time in the classroom observing teaching practices and student learning activities.

3. The primary conclusion overall is that ITIP training appeared to have a beneficial effect on teaching practices among the respondents.

Recommendations

1. This study should be replicated with other groups of teachers to validate the results of this study.

2. ITIP training should be expanded to other schools.

3. Further research should be carried out which would relate measures of student achievement to the variables identified in this study.

APPENDICES

RESEARCH QUESTIONNAIRE

DIRECTIONS: On questions 1 to 7 please circle the appropriate answer. If you choose "other", please clarify.

1. Present job title: (select only one)

   1. Vocational Teacher
   2. Special Education Teacher
   3. Administrator
   4. Counselor
   5. Other _____ _____

2. Which Gender?

   1. Male
   2. Female

3. How many years have you taught vocational education classes? Or years of counseling or administration?

   1. 1 to 5 years
   2. 6 to 10 years
   3. 11 or more years

4. Ethnic background (optional)

   1. Caucasion
   2. Black
   3. Hispanic
   4. Asian
   5. Other _____

5. What type of degree do you hold (circle highest level)

   1. High School Diploma
   2. Associate Degree
   3. B.S. Degree
   4. Masters
   5. Other _____

6. Which teaching certificate do you now hold?

   1. Annual Authorization
   2. Temporary Vocational Authorization
   3. Secondary Provisional Certificate
   4. Full Vocational Authorization
   5. Secondary Continuing Certificate

7. What is your age range?

1. 20 - 25	4. 36 - 40	7. 51 - 55
2. 26 - 30	5. 41 - 45	8. 56 - 60
3. 31 - 35	6. 46 - 50	9. 61 - 65

TRAINING SKILLS

DIRECTIONS: Please identify the importance of each skill by rating them on the left by circling the appropriate number. On the right please indicate whether you increased, decreased, or had no change because of your ITIP training by circling the appropriate number. Administrators and counselors please respond according to how you perceive that these skills are being used in the vocational classroom of your building by circling the appropriate number.

Importance of					Use of		
Low	Moderate	High			Increase	Decrease	No Change
1	2 3 4	5	8.	Promote active participation of students	I	D	NC
1	2 3 4	5	9.	Monitor the learning process	I	D	NC
1	2 3 4	5	10.	Adjust your teaching to the pace of the students	I	D	NC
1	2 3 4	5	11.	Check for understanding by using signals	I	D	NC
1	2 3 4	5	12.	Use of wait time	I	D	NC
1	2 3 4	5	13.	Involve most of the students most of the time	I	D	NC
1	2 3 4	5	14.	Use of praise in the classroom	I	D	NC
1	2 3 4	5	15.	Give immediate knowledge of results	I	D	NC
1	2 3 4	5	16.	Create a level of concern	I	D	NC
1	2 3 4	5	17.	Check for level of difficulty	I	D	NC
1	2 3 4	5	18.	Lower the level of concern	I	D	NC
1	2 3 4	5	19.	Lower the level of concern for test	I	D	NC
1	2 3 4	5	20.	Do a task analysis for each objective	I	D	NC
1	2 3 4	5	21.	Move close to students who are disruptive (Proximity)	I	D	NC
1	2 3 4	5	22.	Use Bloom Taxonomy	I	D	NC
1	2 3 4	5	23.	Improvement of time on task	I	D	NC

Importance					Use of	
1	2 3 4	5	24.	Teach to an objective	I	D	NC
1	2 3 4	5	25.	Ignore students who are showing off	I	D	NC
1	2 3 4	5	26.	Select students to answer questions (in a systematic way)	I	D	NC
1	2 3 4	5	27.	Provide for peer tutoring	I	D	NC
1	2 3 4	5	28.	Create an environment for success of students	I	D	NC
1	2 3 4	5	29.	Create a positive self-concept	I	D	nC
1	2 3 4	5	30.	Use extrinsic rewards	I	D	NC
1	2 3 4	5	31.	Use "set" induction to prepare students for learning	I	D	NC
1	2 3 4	5	32.	Say good morning and/or good bye to students	I	D	NC
1	2 3 4	5	33.	Provide closure	I	D	NC
1	2 3 4	5	34.	Provide short practice for past learning	I	D	NC
1	2 3 4	5	35.	Use lots of examples	I	D	NC
1	2 3 4	5	36.	Make lessons meaningful	I	D	NC
1	2 3 4	5	37.	Write directions on the board	I	D	NC

STUDENT ACHIEVEMENT

Do the students:

1	2 3 4	5	38.	Have better grades on homework	I	D	NC
1	2 3 4	5	39.	Turn in more homework	I	D	NC
1	2 3 4	5	40.	Achieve higher test scores	I	D	NC
1	2 3 4	5	41.	Respond to signals	I	D	NC
1	2 3 4	5	42.	Have better answers to oral questions	I	D	NC
1	2 3 4	5	43.	Pay attention longer	I	D	NC
1	2 3 4	5	44.	Perform tasks quicker	I	D	NC
1	2 3 4	5	45.	Of low achievement answer questions	I	D	NC

Importance					Use of	
1	2 3 4	5	46.	Translate concepts into their own words	I D	NC
1	2 3 4	5	47.	Retain information from one assignment or quiz to another	I D	NC
1	2 3 4	5	48.	Responds to praise	I D	NC
1	2 3 4	5	49.	Responds to rewards	I D	NC
1	2 3 4	5	50.	Responds to success	I D	NC
1	2 3 4	5	51.	Spends quality time on tasks	I D	NC

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SUPERINTENDENT - John B Jeffrey, Ed D

November 23, 1988

Mrs. Jane Torry
18020 McKinley Road
Big Rapids, MI 49307

Dear Mrs. Torry:

Because you have completed the ITIP training, I am asking for your help in researching the value of this training. Would you please take a few minutes and fill out the enclosed questionnaire and return it in the enclosed postage paid envelope.

Thank-you for your valued input. All replies will be kept confidential. If you are interested in the results, please send me a self-addressed, stamped envelope and I will mail the results to you when they are available.

Please mail this form back no later than December 12, 1988. We hope to tabulate the results by January 1, 1989.

Thank-you very much for your time and assistance.

Sincerely,

John B. Jeffrey
Superintendent
Big Rapids Public Schools

November 1, 1990

Dear Mr. Mieras, Vocational Director,

As one of the requirements for completing a Masters Degree or Science in Occupational Education at Ferris State University, I must conduct a research study for my Master's Thesis. With your permission and help, I would like to send out a questionnaire to all staff, counselors, and administrators of Kent Skills Center, as well as, College Avenue Skills Center.

This survey deel with the perceived value of the ITIP training that was given at Kent Skills Center. The goal of this survey is to determine differences between perceived value of ITIP relative to teachers and administrators, as well as, to determine if there are any perceived differences based on demographic characteristics of the teachers.

Mr. Mieras, if you are interested in the results of this research, just let me know, and I will see to it that you receive a copy.

Thank-you for taking time for me,

Jane Terry

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