

KNOWLEDGE AND PRACTICES OF VOCATIONAL LABORATORY TEACHERS
IN ALABAMA TECHNICAL COLLEGES AND INSTITUTES
REGARDING NEGLIGENCE

by

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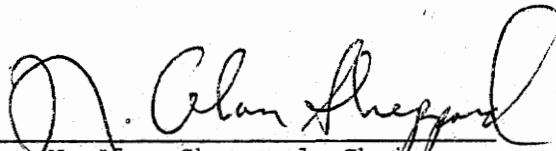
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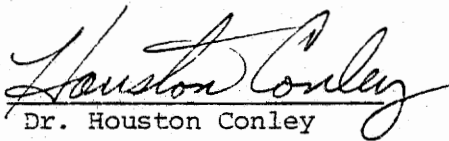
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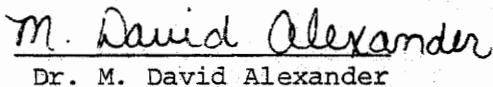
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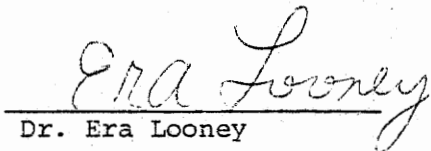
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DEDICATION

This research is dedicated to my wife, Bessie, and my children--
Glenn Eliot, Jocelyn Elise, and Gina Elaine--and to the memory of my
parents, Mr. and Mrs. George E. Jones, Sr.

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Chapter 1

INTRODUCTION

BACKGROUND AND PROBLEM DESCRIPTION

Liability of vocational laboratory teachers has become a very significant issue in education in recent years (Kigin, 1973). Further, he points out that, "The number of court actions resulting from school-related pupil injury has increased in recent years (because of) the expanding school program, greater awareness of the possibility of successful court actions, and changes in state laws" (p.7). It has been estimated that school involved lawsuits exceed 8,000 per year (Gauerke, 1968). Vocational laboratory teachers are in a more precarious position than regular classroom teachers because of the hazardous nature of their teaching environment and the dangerous equipment, if misused, with which they work. Even when observing rules of safety and taking precautions to avoid injury, accidents occur, and when they do, the teacher, the school, or both may or may not be liable depending upon the circumstances of the accident and the laws of the state in which the injury occurs (Kigin, 1973).

The possibility of legal action resulting from student injuries has caused considerable concern among all teachers, but it is of particular concern to vocational laboratory teachers. Appelenzer (1970) comments on the problem in this way:

Athletic coaches and physical education teachers, along with shop and science teachers, face the possibility of being sued for negligent acts more than other teachers. This is because of the nature of the subject they teach...There are more liability suits against teachers than other members of the school staff because teachers make up the largest percentage of the professional staff. Also, they deal more directly with the pupils than do other staff members (p. 7).

Gauerke (1959) remarks that sometimes an ordinary act on the part of a teacher can lead to trouble. Even in emergencies where any prudent adult must use good judgment as to what should be done, teachers must insure that they do not overstep their authority. In any instance of injury, however, it is necessary to prove negligence on the part of the teacher if the teacher is in control at the time of the injury.

Kigin (1973), Kallen (1971), and Hillison (1968) are among the authorities in the area of vocational education who strongly urge that laboratory teachers familiarize themselves with the body of the law and become aware of court decisions that have ensued from teacher liability cases. To this end, teachers may anticipate and take precautions against situations that may result in injury to the student and thereby liability suits against the teachers.

Courses in school law in colleges and universities have been traditionally reserved for school administrators, not classroom teachers. Smith (1975) asks, "...Who could possibly be in greater need of a knowledge of educational law than the person at the 'actionable level,' the classroom teacher?" (p. 4). In most instances, it is presumed that the teacher knows the law. Smith points out that if this were not the case, it would be difficult, if not impossible, to hold anyone liable for anything. A person could simply plead ignorant of the law. The old adage "Ignorance of the law is no excuse for crime" is likely to be

used by the courts for a long time. It is, therefore, imperative that all teachers and most especially teachers in high risk areas such as vocational laboratories become more knowledgeable of tort liability regarding negligence in the school situation, not to frighten them or discourage innovation, but to enlighten them as Kigin (1973) asserts, so that they may be more secure in their positions. For them to do less is to endanger their own professional survival.

Mix (1969) points out that a major aspect of the total picture of the liability issue is the legal position of the employing school district when a student is injured as a result of alleged misconduct or negligence on the part of the teacher. Gauerke (1969) makes the following observation on this point:

The rule that 'the state (king) can do no wrong' has meant that the school district is immune since it is an arm of the government. The negligence of a teacher as an employee, however, is not reduced or cancelled out simply because the employer (the school district) enjoys immunity. A teacher is personally liable for acts of negligence while performing his teaching duties (p. 263).

Hurt (1971) developed a self-instructional course on teacher responsibilities and duties as related to emergency health situations and principles of tort liability as a result of an observed need for teachers to possess competencies in these areas in the absence of educational experiences designed to develop these competencies. Carley (1976) also examined the liability of persons responsible for the operation of the public school with particular attention to the school district, school officer, and school employees with emphasis on injuries sustained in programs of physical education in public schools. Significant in this study are Carley's lengthy comments on the rapidly eroding doctrine of immunity of school districts.

The whole area of teacher liability in student injury is complicated even when authorities attempt to discuss it in the simplest terms. The many ramifications, therefore, of the issue of negligence in legal actions make it more necessary for teachers to insure their own awareness of their vulnerability in cases involving student injury resulting from negligence.

STATEMENT OF THE PROBLEM

The central problem in this study was to ascertain the knowledge level of vocational laboratory teachers in technical colleges and institutes in Alabama about tort liability. Furthermore, the study sought to determine the extent to which these same teachers observed and enforced safety procedures in the conduct of vocational laboratory classes.

PURPOSE OF THE STUDY

The purposes of this study were twofold:

1. Identify possible relationships between the knowledge of vocational laboratory teachers about tort liability regarding negligence and their practices of safety in the conduct of their classes.
2. Secure baseline data that will serve as a basis for needed in-service and/or professional development workshops in the area of tort liability and laboratory safety practices for vocational teachers at the post-secondary level.

SIGNIFICANCE OF THE STUDY

When a legal action follows a school-related injury to a pupil, the legal liability of shop teachers and its corollary school shop safety

are brought into sharp focus. The major factor that is generally considered in such instances is proof of teachers having exceeded their authority, used poor judgment, having been negligent or failed to take reasonable precautions that were necessary (Kigin, 1973, p. 11).

Hillison (1968) reiterates this same point when he asserts that, "... Negligence can come about because the teacher is guilty of ineffective supervision, poor instruction or lack of foreseeability" (p. 158).

It is immediately apparent through the review of literature that vocational laboratory teachers are doubtful regarding where their rights and responsibilities begin and end. Kigin (1973) indicates that, "When an accident in the school shop causes serious injury or involves financial considerations, a legal action may result" (p. 36).

Jacobson (1974) states, "In a court of law, the defense of not knowing one's legal responsibilities toward others has not been an acceptable legal defense" (p. 10). Although there are no specific laws delineating every duty or responsibility of teachers, some of these responsibilities have been well defined in some of the court cases involving student injury. Consequently, it is critical that efforts be made to determine the extent of the knowledge of vocational laboratory teachers regarding their responsibilities and rights. Therefore, this study lends credence to this concern.

Research regarding teacher liability for injury to pupils has increased in the last few years. Dwyer (1966) made an analysis of court holdings dealing with the liability of teachers for injury to pupils between 1946-1965. He found that of the sixty-five cases that were reported in the National Reporter System during the period under investigation, forty-three were held for the defendant and twenty-one for the

plaintiff. Forty of the cases were tried in the courts of record of thirteen states during the period 1956-1965. The other twenty-one tried in the period from 1946-56 were in the courts of record of seven states. Again, there seems to be unequivocal verification that vocational laboratory teachers need to be keenly aware of the consequences of negligence.

Mix (1969) brought together in his dissertation the key cases and relevant statutes involving teacher liability in the public schools of New Jersey. Mix's intent was to help educators identify danger areas in their conduct as teachers, to help them develop an understanding of the relevant legal principles which govern and affect their professional conduct and to help them know when to seek professional legal assistance.

This study can provide a rational basis for developing and implementing in-service workshops, seminars or institutes for vocational laboratory teachers in the areas of negligence, tort liability and safety regulations. In addition, a paucity of empirical information exists currently on the subject of tort liability regarding negligence involving vocational laboratory teachers. While this study can contribute to the already small body of existing knowledge on the subject, it can also bridge the gap between those few previous studies and the need to update more recent research. Most essential is the fact that this study can stimulate and promulgate further research in the area of tort liability regarding negligence involving vocational laboratory teachers.

HYPOTHESES

Hypotheses in the null form tested regarding the knowledge and

practices of vocational laboratory teachers in Alabama technical colleges and institutes about tort liability regarding negligence were as follows:

1. No significant relationship exists between teacher knowledge and practices.
2. No relationship exists between teacher knowledge and the location of the school--urban, suburban and rural.
3. No relationship exists between teacher knowledge and the level of training of the teacher.
4. No relationship exists between teacher knowledge and the gender of the teacher.
5. No relationship exists between teacher knowledge and number of years of teaching experience.
6. No relationship exists between teacher knowledge and the age of the teacher.
7. No relationship exists between knowledge and the teacher's experience in industry.
8. No relationship exists between safety practices and procedures and location of the school--urban, suburban and rural.
9. No relationship exists between safety practices and procedures and the level of training of the teacher.
10. No relationship exists between safety practices and procedures and the gender of the teacher.
11. No relationship exists between safety practices and procedures and the number of years of teaching experience.
12. No relationship exists between safety practices and procedures and the age of the teacher.

13. No relationship exists between safety practices and the teacher's experience in industry.

BASIC ASSUMPTION

The basic assumption of this study is that all participants responded honestly and candidly to the questionnaire used to collect the data.

SCOPE AND LIMITATION OF THE STUDY

The following limitations should be considered in drawing conclusions from this study:

1. Participation in the study was limited to the vocational laboratory teachers in the technical colleges and institutes in Alabama. Generalizations should be made with caution in drawing conclusions with reference to other groups.
2. The examination of the knowledge and practices of vocational laboratory teachers was accomplished by a self-reporting method. Therefore, some care should be taken in generalizing regarding the population.
3. No attempt was made to identify knowledge and safety practices of vocational laboratory teachers in areas other than tort liability regarding negligence.

DEFINITION OF TERMS

For uniformity in the interpretation of terms used throughout this study, the following definitions are pertinent:

Assumption of risk refers to the fact that the injured person is barred from recovering damages from another because he appreciated the nature and extent of the risk and voluntarily subjected himself to it (Kallen, 1971, p. 91).

Compensatory damages refer to damages sufficient to compensate the injured party for the loss sustained and nothing more (Nolte, 1969, p. 227).

In loco parentis means acting in the place of the parent and being charged with some of the parent's rights, responsibilities and duties (Kigin, 1973, p. 118).

Liability is a debt or legal responsibility (Drury and Ray, 1967, p. 200).

Negligence refers to the failure to do that which a person of ordinary prudence and foresight might be expected to do and which through a duty owed forms the proximate cause of an injury to another (Nolte, 1969, p. 228).

Proximate cause refers to that which produces an event, and without which the event could not have occurred (Drury and Ray, 1967, p. 203).

Laboratory teacher refers to a qualified professional person responsible for the instruction of pupils in the types of education related to industry including industrial arts, technical and vocational-industrial education (Kigin, 1973, p. 119).

Tort refers to a legal injury or wrong committed by one individual against another (Jacobson, 1974, p. 8).

SUMMARY

It is becoming increasingly significant that vocational laboratory teachers become more knowledgeable of the body of law concerning tort liability with regard to negligence for their own professional survival. In addition, it is imperative that vocational laboratory teachers themselves practice safety and enforce safety practices and procedures in the conduct of vocational laboratory classes. In order to determine the extent of the knowledge and practices of vocational laboratory teachers in technical colleges and institutes in Alabama regarding tort liability and negligence, the following variables were used: geographical location of school, level of training of the teacher, the number of years of teaching, the gender of the teacher, the employment status of the teacher and knowledge and practices.

ORGANIZATION OF STUDY

The study is divided into five chapters. Chapter 1--Introduction--includes the background and problem description, statement of the problem, purpose of the study, significance of the study, hypotheses, the basic assumption, scope and limitation of the study, and definition of terms. Chapter 2--Review of Related Literature--will discuss the duties and responsibilities of teachers regarding safety, teachers' knowledge and practices regarding liability and negligence, defenses against charges of negligence, and other forms of protection available to teachers when they are involved in legal action. Chapter 3--Research Methodology--will describe and delineate the population and sample used in the study, the research design, data and instrumentation, data

collection procedure, and statistical analysis and treatment of the data. Chapter 4--Analysis of Data--will present the data and discuss the results of the information obtained from a questionnaire distributed to the vocational laboratory teachers in the technical colleges and institutes in Alabama. Chapter 5 will give a summary and conclusions and offer recommendations concerning the ways vocational laboratory teachers can increase their knowledge of the body of law dealing with tort liability regarding negligence and improve their safety practices in order to protect the students in their classes and avoid damaging court cases.

Chapter 2

REVIEW OF RELATED LITERATURE

INTRODUCTION

The purpose of this chapter is to review pertinent studies, journal articles, reports and other research relative to teachers' knowledge of the body of law pertaining to tort liability regarding negligence and their observance of shop safety practices. The review will be outlined as follows: (1) duties and responsibilities of teachers regarding safety, (2) teachers' knowledge and practices regarding liability and negligence, (3) defenses against charges of negligence, and (4) other forms of protection available to teachers when they are involved in legal action.

When a legal action follows a school-related injury to a pupil, the legal liability of shop teachers and its corollary school shop safety are brought into sharp focus. However, the assignment of liability for a pupil injury is sometimes difficult. The major factor that is generally considered in such instances is proof of teachers having "exceeded their authority, used poor judgment, were negligent, or failed to take reasonable precautions that were necessary" (Kigin, 1963, p. 11). If, on the other hand, the injury resulted from conduct that was not "intended to cause the injury and if that injury could not have been foreseen or prevented by the use of reasonable precautions,

then the law regards the result as an unavoidable accident" (Leibee, 1965, p. 8).

It is incumbent upon the jury in the cases brought to court to determine whether the actions of a defendant are negligent. A great deal of the literature underscores three main aspects of negligence. Hillison (1968) summarizes these points when he asserts that, "...negligence can come about because the teacher is guilty of ineffective supervision, poor instruction or a lack of foreseeability" (p. 158). Hamilton and Mort (1959) remark that, "What constitutes negligence is a question of fact in all cases...The best protection from liability a teacher has lies in the use of extreme care in all cases in which it is possible for pupil injury to occur" (p. 295).

DUTIES AND RESPONSIBILITIES OF TEACHERS REGARDING SAFETY

Vocational education shop and laboratory teachers have definitely stated legal responsibilities with regard to pupil safety and accident prevention. Jacobson (1974) states, "In a court of law, the defense of not knowing one's legal responsibilities toward others has not been an acceptable legal defense" (p. 10). Although there are no specific laws delineating every duty or responsibility of teachers, these responsibilities have been well-defined in some of the court cases involving pupil injuries. Precedence, then, has to a very great extent been the basis for deciding litigations and has become the law of the courts in determining innocence or guilt in a large number of school-related court decisions (Jacobson, 1974).

Teachers are a part of an institution, a school system, which

assumes control over pupils while they are deprived of the protection of their parents when they are under the care of school officials.

Therefore, the school personnel must accept the responsibility for the safety of the pupils during these hours in loco parentis. One of the duties of teachers is not to subject the pupils to an unreasonable risk of harm (Kallen, pp. 14-15). Nolte (1969) succinctly delineates the in loco parentis relationship of the student to the teacher in this way:

Certain rights and responsibilities attach to the position of teachers because of this relationship: the right to discipline and control over children, and to provide for their safety and welfare. But teachers do not work for the state on their own terms; rather, they work for the state on the terms laid down by the state. Therefore, the teacher is expected to know the extent and limitation of his own authority and responsibility under the state's school code. Ordinarily, teachers are not usually apprised of their legal rights and responsibilities in the course of their collegiate preparation, and must rely upon experience and graduate classes to become fully aware of their legal standing (pp. 19-20).

Since the potential for pupil injury is greater in shops and laboratories than in other areas of the school, a major responsibility assumed by shop teachers is to ensure that shop equipment is properly cared for. Ramp and Johnson (1963) point out that, "Shop teachers have a professional obligation to assist school administrators in selecting equipment for school use that is not only the best available for instructional purposes, but also seems to be the safest for student use" (p. 136). It is the responsibility of the shop teachers, then, to be knowledgeable regarding what constitutes safe equipment and choose tools and machinery for instructional purposes that have the most excellent safety features. Teachers attempting to impart safety attitudes and practice using unsafe equipment find themselves in a potentially explosive position (Ramp and Johnson, 1963).

Roden and Kowalski (1963) list thirteen areas in which teachers assume the responsibility in a comprehensive shop safety education program. They are as follows:

1. Incorporate safety instructions in the course of study.
2. Give instruction on hazards and accident prevention specific to the particular shop.
3. Give instruction and promote activities which will lead to accident prevention in future employment.
4. Foster student cooperation in accident prevention.
5. Follow all safety practices personally.
6. Keep up to date on modern and accepted safe practices in the subject field.
7. Revise shop facilities to provide for optimum safety conditions. Give special attention to: (a) shop layout, (b) utilities and building services, (c) equipment and tools, (d) storage and handling of materials.
8. Carry out recommendations of administrator for improving safety instruction or safe working conditions.
9. Devise and enforce safe housekeeping procedures.
10. Provide for the use of necessary personal protective equipment.
11. Develop specific safe practices and regulations.
12. Develop an appropriate student personnel system.
13. Make recommendations to administrators for improving shop safety conditions (p. 51).

In addition to these responsibilities, Ault and Williams (1963) strongly recommend that teachers provide instruction in what to do in the medium of an instruction sheet distributed on the first day of class. While it is important to avoid accidents as far as humanly possible, accidents do occur. If pupils have a complete understanding of what to do when accidents occur, serious or permanent injury may be minimized.

Safety instruction is a very important responsibility of vocational shop and laboratory teachers. Mastery of the skills and knowledge of an area of study or occupation are essential, but not more essential than helping pupils to develop safety-consciousness in performing tasks the safe way. Teachers are essentially assisting pupils in developing skills and knowledge that help prepare students to work

safely in their chosen occupations. To this end, "Shop teachers carry a social obligation for conservation of human resources that will ensure an efficient labor force upon which to build the national economy and security" (Ramp and Johnson, p. 138).

In addition to the legal and professional responsibilities of shop teachers, they also have an all-encompassing moral responsibility to fulfill. When accidents occur, teachers have to live with their own consciences. It is morally incumbent upon teachers, therefore, to assist the school in accepting as a minimum obligation "...to attempt to make certain that individuals leave shop programs with a physical and mental condition that is at least as good as it was when they entered" (Ramp and Johnson, p. 138).

TEACHERS' KNOWLEDGE AND PRACTICE REGARDING LIABILITY AND NEGLIGENCE

Expanding school programs, greater awareness of the possibility of successful court actions and changing state laws have led to an increase in the number of court actions resulting from school-related pupil injuries (Kigin, 1973). Not all cases involving pupil injury in the school shop result in litigation, but the possibility of litigation is always present. Therefore, it is very important for teachers to understand fully the elements which contribute to liability.

"Liability" as defined by Kigin (1973) "is the state of being responsible by law for damages stemming from pupil injuries" (p. 9). It is pointed out repeatedly in the literature that shop and laboratory teachers, due to the nature of their responsibilities, are in the most hazardous positions in regard to possible liability cases. Teachers,

however, cannot guarantee that they will conduct shops and laboratories free of injuries and accidents. The determining factor in establishing liability is whether the accident occurred as a result of negligence.

Research involving teacher liability for injury to pupils has increased in the last decade. Dwyer (1966) made an analysis of court holdings dealing with the liability of teachers for injury to pupils between 1946-1965. He found that of the sixty-five cases that were reported in the National Reporter System during the period under investigation, forty-three were held for the defendant and twenty-one for the plaintiff. Forty of the cases were tried in the courts of record of thirteen states during the period 1956-1965. The other twenty-one tried in the period from 1946 to 1956 were in the courts of record of seven states.

Mix (1969) brought together in his dissertation the key cases and relevant statutes involving teacher liability in the public schools of New Jersey. Mix's intent was to help educators identify danger areas in their conduct as teachers, help them develop an understanding of the relevant legal principles which govern and affect their professional conduct and to help educators to know when to seek professional legal assistance.

Lacy (1960) identified and discussed rules of law relating to the legal liability of physical education teachers and coaches of interscholastic athletic teams while such personnel are acting within the scope of their employment. Lacy's study was limited to teaching personnel of the public secondary schools governed by the Education Code of California. He reached ten conclusions or general rules governing

physical educators and administrators.

A study similar to Lacy's was done by Mitchell (1976) in which he made an analysis of court cases pertaining to tort liability of teachers for injuries sustained by pupils in school programs of physical education and of the eroding doctrine of immunity of school districts. Based on the findings of his research, Mitchell drew twenty conclusions regarding tort liability of physical education teachers.

Jacobson (1974) studied the knowledge and practice of women physical education teachers in Indiana regarding negligence. She found that:

1. Women physical education teachers in the state of Indiana have limited knowledge concerning the various aspects of negligence.
2. Teachers practice those legal functions which are directly related to the teacher-pupil classroom situation.
3. Teachers do not practice legal functions which are clerical in nature.
4. Teachers are inconsistent in the application of their knowledge of legal responsibility to their teaching practices.
5. Women physical education teachers in the public secondary schools of Indiana are unaware of their legal responsibility toward their students with regard to practices which are generally covered by school policy (p. 96).

Leibee (1965) defines negligence as "the failure to act as a reasonably prudent and careful person would act under the circumstances to avoid exposing others to unreasonable danger or risk of injury or harm" (p. 4). Negligence may also involve the omission of an action as well as the commission of an action. Leibee points out that the historical development of laws of negligence have resulted in the formulation of a group of elements essential to the successful maintenance of a suit based on negligence, including the following:

1. Duty to conform to a standard of behavior which will not subject others to an unreasonable risk of injury.

2. Breach of that duty - failure to exercise due care.
3. A sufficiently close casual connection between the conduct or behavior and the resulting injury.
4. Damage or injury resulting to the rights or interests of another (pp. 8-9).

Alexander (1973) comments that there is no obligation to duty in a case where the defendant could not have reasonably foreseen the danger or the risk involved. It has been generally agreed that the first test of negligence is the test of foreseeability. Hillison (1968) states that, "Foreseeability [refers] to the fact that a teacher or normally prudent person should be aware of and anticipate the consequence of a dangerous situation" (p. 158). It is incumbent upon shop and laboratory teachers to determine all areas of possible risk and take necessary precautionary measures immediately. According to Kigin (1973) "...Key to the determination of reasonably prudent action is to be gauged by the ability of the teacher to anticipate or to foresee danger. Prevention can best be achieved by careful attention to the focal points of trouble" (p. 19).

Another factor to be considered in addressing the issue of foreseeability involves an interpretation of a "reasonably prudent person" which according to Kallen (1971) permeates negligence law. He states:

When the jury compares the actions of a defendant to those of a reasonably prudent person, that "ideal citizen" is placed into the situation as it existed at the time of the acts, and is given the same physical characteristics and special skills as the actual defendant...However, although special skills and physical characteristics are taken into account, no allowances are made for the lack of intelligence or quick temper of the adult defendant (probably because they are too hard to discern and measure)--he is held to the standard of a reasonably prudent person of average intelligence and even temperament. Further, he cannot claim to possess less knowledge about ordinary matters than the ordinary person (pp. 15-16).

It must be noted, however, that the "reasonably prudent man" formula "changes with different factual situations because of the attributes or deficiencies of the defendant himself and because of peculiarities of beliefs, values and customs of the individual community" (Alexander, 1973, p. 12). Whether the injury could have been prevented is not the test, but according to Ruetter (1960), "The test is whether the teacher should have anticipated the injury and should have acted before harm was done" (p. 75).

In the case of *De Benedittis et al. v. Board of Education of city of New York*, judgment was in favor of the plaintiffs because there was proof upon which a jury could find the defendant, a teacher, negligent in failing to lock a machine which caused personal injury to the plaintiffs or in leaving the machine unattended for an unreasonable length of time, or in the teacher's failing to observe from time to time to see if the machine was tampered with by other students. Although the teacher's negligence was concurrent with the act of a third person, no act of a third person could have contributed to the injury of the infant plaintiff. The proof was such that the jury was free to find that the plaintiff was not warned against using the machine in doing the work which had been assigned to him (Loveless and Krajewski, 1974).

The doctrine of "reasonable prudent behavior" is summarized in the following instructions of the judge to the jury in the case of *Osborne vs. Montgomery* (203 Wisc. 223: 234 N.E. 372):

Every person is negligent when, without intending any wrong, he does such an act or omits to take such a precaution that under the circumstances he, as an ordinary prudent person, ought reasonably to foresee that he will thereby expose the interest of another to an unreasonable risk of harm. In determining whether his conduct will subject the interest of another to an unreasonable risk of harm,

a person is required to take into account such of the surrounding circumstances as would be taken into account by a reasonably prudent person and possess such knowledge as is possessed by an ordinary reasonable person and to use such judgment and discretion as is exercised by persons of reasonable intelligence under the same and similar circumstances (Leibee, pp. 9-10).

In addition to foreseeability as a test of negligence, another significant consideration is whether or not teachers are guilty of ineffective supervision. Along with the fact that the teacher in the case of *De Benedittis, et al. v. Board of Education* cited previously had not acted as a reasonably prudent person, there was proof that the teacher had also failed to supervise the plaintiff while he was using the machinery. "Courts have decided that an affirmative duty to act may be imposed where the defendant has accepted any responsibility for the safekeeping of plaintiff; it is into this category that teacher-pupil relationship falls" (Kallen, p. 15). It is the responsibility of the pupil-plaintiff to prove that the teacher-defendant neglected his duty in subjecting the pupil to an unreasonable risk of harm.

What constitutes "legally adequate supervision" is whatever a jury of peers says it is and nothing more. Nolte (1969) remarks that just as standards of behavior differ from one part of the country to another, legally adequate supervision varies from one part of the country to another. A court ruled in favor of a high school student who fractured his ankle while being initiated into an extracurricular activity sponsored at a private home after school hours. The faculty advisor was absent. In ruling in favor of the boy and his parents, the Washington Supreme Court said:

Where, as here, the evidence reveals that educational and cultural values inherent in the normal activities of an extracurricular student body organization, and the school administration

has assumed responsibility for supervision over the organization, which, in turn extends to tacit approval of the faculty participation in the planning and supervising off-campus initiation ceremonies involving physical ordeal, the school district cannot relieve itself of potential tort liability arising out of an initiation stunt upon the grounds that, standing alone, the initiation rite possesses no educational value (Nolte, 1969, p. 120).

It has been pointed out above that the hazardous nature of activities in shops and laboratories makes them high risk areas for injury. Therefore, "Strict supervision of students while they are using hazardous machinery and dangerous tools" is most essential (Ault and Williams, 1963, p. 104). Teachers must ensure that pupils understand the steps necessary for safe manipulation of machines and the tools of a given shop or laboratory.

Kallen (1971) comments that, "The teacher who has absented himself from his room is not automatically liable for every injury which occurs while he is gone. However, the courts have drawn a narrow line between liability and non-liability" (p. 40). Kigin (1973) comments further on this point as follows:

A teacher in charge of a school shop is expected to supervise the pupils more closely than would be necessary in the usual classroom. The youth and inexperience of the pupils increase the precautions necessary to minimize risk. The teacher has the prime responsibility of regularly inspecting facilities and equipment to correct potential hazards before allowing the pupils to use them,...If an injury results, he may be declared negligent and, thereby, liable for tort (p. 10).

Alexander (1973) observes that, "Supervision means more than just being present and watching over activities. It may include the quality of supervision which is actually performed by the teacher" (p. 80). Although it is obvious that every teacher at one time or another fails to provide adequate supervision, it is only when such lack of supervision was the cause of pupil injury that the teacher is liable.

Third among the causes of liability for negligence listed by Hillison (1968) is poor instruction. Pendered (1963) points out that basic to all shop teaching is the necessity to teach safety consciousness. He asserts that, "The shop teacher can foster the development of good safety attitudes by proper motivation of students, providing for student participation in safe practices, maintaining good class control with rigid enforcement of safety rules, teaching by example rather than precept, avoiding threats, warnings and the use of fear, utilizing detailed instruction and demonstrations with vital correlations and using group-discussion techniques" (p. 57).

Ramp and Johnson (1963) analyzed the elements of a safe shop environment as including proper apparel, safe building conditions, proper organization of tools and equipment, proper illumination and ventilation, an adequate number of work stations and materials among other things. Inadequate facilities and an unsafe environment can lead to poor instruction, though there may also be other causes. Failure of teachers to properly instruct students in the suitable attire, for example, can result in court action involving teacher liability. Failure to provide personal protective equipment such as coveralls or aprons, was held by a New York court to be negligence on the part of the school district (Alexander, 1973).

Kallen (1971) comments that, "The most common occurrence is a pupil injury resulting from lack of adequate instruction" (p. 43). Teachers have an obligation to protect their pupils from the pupils' lack of judgment and maturity. "Adequate instruction" should include the insistence upon pupils using proper safety precautions as well as

providing adequate warnings clarifying the danger inherent in not following proper instructions. He states:

The courts have made it clear that any instruction which does not include information as to the degree of danger and the gravity of the injury which could result from not following the directions is legally inadequate. The shop teacher must detail the dangers of putting inappropriate objects into the machines, and when he becomes aware that a pupil is assembling a dangerous instrumentality (such as a cannon or a rocket), he has a duty to carefully instruct the pupil as to the proper use of his creation (p. 43).

Courts are very sensitive to pupils' complaints of inadequate instruction. Therefore, teachers have to ensure that they have adequately instructed each pupil. Kallen (1971) suggests that teachers should keep a checklist of the date of each specific instruction, the contents of lectures and a record of absences so that they may provide evidence of the adequacy of the instruction. In addition, teachers should take proper measures to make absolutely certain that pupils with learning deficiencies or physical or mental handicaps understand the instructions.

DEFENSES TO CHARGES OF NEGLIGENCE

Kigin (1973), Kallen (1971), Hillison (1968), and Alexander (1973), all agree that teachers are not without redress in a court of law. General agreement exists that ways to defend a suit of negligence include claims of contributory negligence, assumption of risk, proximate cause and in loco parentis. Kigin (1973) points out that, "Contributory negligence and assumption of risk are normally questions of fact for the jury, with the burden of proof on the defendant, whereas the plaintiff has the burden of proof in the case of ordinary negligence" (p. 25). Caution must be taken by the defendant, however,

to ensure that the charges of contributory negligence and/or assumption of risk are valid defenses inasmuch as the age of the pupil involved has a direct effect on the court decision although no specific age is designated by most courts (Kigin, 1973).

Contributory negligence and assumption of risk are closely related in that contributory negligence says that, "The student is guilty of causing the accident by his own negligence {and} ...assumption of risk that the student assumed the risk which eventually caused the injury when he started the machine or job" (Hillison, p. 168). Kallen (1971) points out that there are defects in both of these defenses, and these should be recognized by teachers who wish to utilize them.

First, where a child plaintiff is concerned, "The judge will rule as a matter of law that very young children cannot be found contributorily negligent under any circumstances" (Kallen, 1971, p. 24); second, generally juries do not hold even older children contributorily negligent because children are expected to be heedless of their own safety. If teachers requested pupils to take part in an activity, set negligent examples, allowed the activity to continue too long and engaged in similar actions, then courts have set a precedence in ruling against contributory negligence or the assumption of risk defense.

Lack of proximate cause allows teachers a defense inasmuch as the onus is on the plaintiff to prove that negligent action on the part of the defendant was the proximate cause of the injury sustained. Hillison (1968) states that:

The theory behind proximate cause is that there must be a direct chain of causation which created the injurious accident. If another student in the shop was a more direct cause of the accident by turning on an electric switch when unexpected, by

moving a gear when not anticipated, or any other direct involvement that actually caused injury to the student bringing the suit, then that fellow student's action would become the direct or proximate cause of the accident (p. 158).

Alexander (1973) points out that, "In order for proximate or legal cause to exist, there must be a duty or obligation on the part of the actor to maintain a reasonable standard of conduct" (p. 19). Proximate cause was a prominent feature in the case of *Ohman vs. Board of Education of New York*. The courts ruled that the absence of the teacher from the classroom was not the direct cause of an injury resulting from the throwing of a pencil by another student (Kigin, 1973).

In loco parentis as a defense of negligence is "an ancient legal doctrine under which the teachers become parents protem" (Kigin, 1973, p. 38). In using in loco parentis as a defense of negligence, defendants can find themselves in precarious positions. Direct action was brought against a high school shop teacher for injuries which a pupil sustained when he fell from staging being constructed around a vocational training building. The court ruled in favor of the plaintiff when Judge Hudson of the Maine Supreme Court stated:

An instructor, accepting responsibility of due care toward persons under his direction and control, must exercise such care, not only as to what he himself actually does in observance of such duty, but as to what he fails to do which he should have done in the exercise of due care (Kigin, 1973, p. 39).

On the other hand, Hillison (1968) points out that in the case where "...a suit is brought against a teacher for injury to a student because of incorrect or faulty medical aid given in an emergency, then in loco parentis would be the defense that [the] teacher would use" (p. 169). Hillison also calls attention to the fact that in loco parentis can work for or against the teacher, depending upon the circumstances.

OTHER FORMS OF PROTECTION AVAILABLE TO TEACHERS

In spite of all of the precautions which shop and laboratory teachers may take, pupil injury is inevitable because of the high risks involved in conducting shop and laboratory classes. Generally, teachers are financially unable to assume the high cost of defense in situations involving legal action. Some other methods that do afford protection for teachers include recent legislation for teacher protection, group liability insurance, personal liability insurance on an individual basis, and legal services through the state education associations.

Group liability insurances are becoming increasingly acceptable to educators as an equitable means of protection against the possibility of a judgment. Both the American Industrial Arts Association and the American Vocational Association have participated in minimal premium professional liability insurance plans. While at least forty states are already offering group liability insurance for all members of state teachers' associations, other states are still in the process of negotiating a group liability policy (Kigin, 1973).

A large number of shop teachers carry individual liability insurance policies. Under these policies teachers may be insured against any damage in which bodily injury, sickness, or death of a pupil is attributed to negligence. Insurance companies have identified the areas of high risk in designing the policies and have scaled the policies accordingly. Premium group "C" is designed for teachers whose work involves athletics, laboratory classes, manual training and physical training (Kigin, 1973).

Available upon request in some states is a service provided through the education association to assist teachers in liability action resulting from school accidents. Other agencies providing this service are the National Education Association, local education associations, and state vocational associations, among others. Kigin (1973) states that in a small number of states other provisions are made to assist and protect teachers involved in liability suits. In other states, where school districts have complete autonomy, the state itself cannot intervene in such matters.

OCCUPATIONAL SAFETY AND HEALTH ACT

One of the most important legislative acts protecting laboratory teachers is the Occupational Safety and Health Act signed into law in December, 1970, which became effective April 28, 1971. The purpose of the Act is, "to insure as far as possible, every working man and woman in the nation safe and healthful working conditions and to preserve our human resources" (Kigin, 1973, p. 64). Under the provisions of OSHA, states may assume the responsibilities of administering their own plans approved by the Secretary of Labor. States must ensure that their plans are equal to or stronger than the federal law, and the plans must ensure that the states will establish and maintain an effective and comprehensive occupational safety and health program applicable to all employees of the state (Kigin, 1973). Failure to comply with the terms provided by OSHA and/or state legislatures could result in liability against school districts, teachers, or both. Since immunity of school districts is being struck down in many court

cases, it is incumbent upon school districts to comply with the provisions of OSHA.

SUMMARY

Vocational laboratory teachers have definitely stated legal responsibilities with regard to pupil safety and accident prevention. A review of the literature, however, underscores the fact that the vocational laboratory teachers are doubtful regarding where their rights and responsibilities begin and end. Although there are no specific laws delineating every duty or responsibility of vocational laboratory teachers, these responsibilities have been well defined in some of the court cases involving pupil injury.

Expanding school programs, greater awareness of the possibility of successful court actions and changing state laws have led to an increase in the number of court actions resulting from school-related pupil injuries. Support for the thesis of the present study is found in the small body of research generated in recent years which reiterates the lack of knowledge of vocational laboratory teachers regarding their vulnerability for legal action in cases of pupil injury.

Teachers in high risk areas such as shops and laboratories are not without redress in the court of law. The research cited in the review of the literature, however, reveals that these teachers are limited in their knowledge of these defenses to charges of negligence. The preponderance of the cases cited in the literature indicates that the teachers in high risk areas fail to utilize to the limit the legal defenses available to them.

Most significant of all is the paucity of knowledge among teachers in high risk areas of other forms of protection available to them in case of legal action against them resulting from pupil injury. Legislative acts of recent years, group liability and individual liability insurances are among the forms of protection that these teachers are not availing themselves of to avoid jeopardy of their professional survival in case of a legal judgment against them.

Chapter 3

RESEARCH METHODOLOGY

INTRODUCTION

In Chapters 1 and 2, the background and problem description and a review of related literature were presented. The purpose of Chapter 3 is to identify the population for the study, describe how the participants to be included in the study were selected, the instrument used in obtaining the data, the procedures used in the collection of the data and finally, the statistical tools utilized in analyzing the data.

POPULATION

The population for this study consisted of the twenty-eight technical colleges and institutes in Alabama. The 297 vocational laboratory teachers in these technical colleges and institutes were used in the study. These teachers included, but were not limited to, teachers of welding, automobile mechanics, automobile body and fender repair, graphic arts, air conditioning, refrigeration, brick masonry, radio-television repair, nursing, cosmetology and barbering. All vocational-technical laboratory teachers were surveyed in each technical institute.

The twenty-eight state technical colleges and institutes are located in all of the geographical areas of the state including urban

and rural areas as indicated in Figure 1. A list of these colleges and institutes was obtained from the State Department of Education, Montgomery, Alabama. A letter (Appendix A) was written to the Director of Post-Secondary and Continuing Education for the State of Alabama requesting permission to conduct a survey in the technical colleges and institutes. Permission was granted in a letter (Appendix B) from the Assistant Director of the Division of Post-Secondary and Continuing Education. A letter (Appendix C) was then sent to the president/director of each of the twenty-eight technical colleges and institutes as indicated in the Directory of Institutions of Higher Learning in Alabama requesting that they identify the vocational laboratory teachers in their institution for participation in the survey. The vocational laboratory teachers used in the survey were those identified by the president/director of the technical college or institute.

RESEARCH DESIGN

In this study, descriptive correlational procedures were employed. The study was basically descriptive in nature in that it was an attempt to ascertain the knowledge level of vocational laboratory teachers in technical colleges and institutes in Alabama about tort liability concerning negligence. Furthermore, the study sought to determine the extent to which these same teachers observed and enforced safety procedures in the conduct of vocational laboratory classes. Descriptive correlational research was employed to determine the relationship existing between knowledge about tort liability regarding negligence and safety practices and procedures employed by the vocational laboratory



Figure 1

Map of Alabama Showing Location of Technical Colleges and Institutes by Counties

teachers. In addition, this research method was used to ascertain whether possible relationships exist between and/or among independent and dependent variables in this study. Age, gender, location of the school--urban, suburban or rural, level of training and years of teaching experience were treated as the independent variables; knowledge of negligence, tort liability, and safety practices were considered to be the dependent variables.

DATA AND INSTRUMENTATION

Description of Instrument

The instrument (Appendix D) used in this study was adapted from an instrument developed by Phyllis Aubrey Jacobson for a study done at Indiana University, 1974 (Knowledge and Practice of Women Physical Education Teachers in Indiana Regarding Negligence). A letter requesting permission to use the instrument (Appendix E) was sent to Dr. Jacobson, and her response (Appendix F) granted permission for use of the "knowledge" portion of the instrument in its entirety and the "practice" portion with modifications. However, it was later necessary to modify the "knowledge" portion of the instrument so that it would more accurately measure what this researcher was interested in.

The questions included in the "knowledge" portion of Jacobson's questionnaire were in four-response multiple-choice form so as to reduce the possibility of guessing (Jacobson, 1974). This procedure increased the accuracy of the information obtained, also. Essentially, content validity was established for the "knowledge" portion of the Jacobson instrument through the use of a five-person selected jury. Upon

modification of the "knowledge" portion of Jacobson's instrument, the investigator selected a four-person jury of experts to critique the instrument for content validity. The jury consisted of the following persons: Dr. Prince Preyer, Department of Agri-Business Education, School of Agriculture, Alabama Agricultural and Mechanical University, Normal, Alabama; Mr. J. W. Looney, J.D., Assistant Professor, Agricultural Economics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; Dr. Richard K. Crosby, Assistant Professor, Vocational Technical Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; and Dr. Margaret Dewald, Assistant Professor, Vocational Technical Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Each juror was furnished a questionnaire and requested by the researcher to validate the content regarding any inconsistencies, ambiguity, and fallaciousness. The jurors returned the questionnaire to the investigator with their reactions. The investigator revised the instrument to incorporate the suggestions made by the jury before it was distributed to the participants.

A four-point Likert-type scale adapted from Jacobson's instrument with modifications was used to survey the "practices" of the sample. This scale is one in which the response categories are graduated along a continuum. This type of scale allowed for the measurement of the degree to which practices were followed. The same jury of experts cited previously critiqued this portion of the instrument. Emandations made by the jurors were used in revising the instrument. Corrections were made before the instrument was distributed.

Data Collection Procedure

The instrument was delivered to each of the twenty-eight technical colleges and institutes in Alabama by the researcher. The main purpose of this procedure was to insure 100 percent participation in the survey so that the study would have greater validity than otherwise. In addition, this method offset the delay that researchers encounter often requiring a first, second, or third follow-up letter because questionnaires are not returned.

Upon entering each institution, the investigator first conferred with the president/director or his appointee to reconfirm the request made in the letter to that office (Appendix C). After observing protocol at the technical colleges and institutes, the investigator immediately began distributing the instrument to the vocational laboratory teachers. The instructions were reviewed with each teacher and the instrument was left with the teacher and picked up by the investigator after approximately thirty minutes.

STATISTICAL ANALYSIS AND TREATMENT OF DATA

In order to facilitate scoring by the computer, the responses on the questionnaire were key punched. The deck of data cards assembled in this process provided the individual responses used in the statistical analysis.

The procedure for computing frequencies and percentages of responses used to complete the statistical analysis was as follows:

1. Frequencies and percentages of responses to each item computed in order to identify the proportion of correct

responses on each of the knowledge items on the instrument and each corresponding practice item.

2. Pearson product-moment, Point Biserial, and Kendall's rank correlation coefficients were computed between subject responses on total knowledge items on the instrument, total practice items, and other variables.
3. Since correlation coefficients are used as a measure of the strength and direction of the relationship between two variables, this technique was chosen so that any significant relationships among the variables could be identified.
4. The dichotomous variables were the knowledge items which were scored either correct or incorrect, and the continuous variables were the practice items which ranged on a continuum from never to always (Jacobson, p. 62-73).

The Statistical Package for the Social Sciences (SPSS), second edition (1975), was used inasmuch as the frequencies, percentages and correlations could be computed by this one program. For purposes of statistical analysis, significant relationships were noted if $\rho < .05$. The alpha level of .05, then, was established as the level to reject or retain each null hypothesis on pages 7 and 8 (Chapter 1).

SUMMARY

In this chapter, the population was identified and described. The research design was delineated and the data and instrumentation were explained. The procedure for collection of data and the method of analysis were also discussed.

Chapter 4

PRESENTATION OF DATA AND ANALYSIS OF RESULTS

INTRODUCTION

This chapter presents the statistical analysis and interpretation of the findings of the investigation. To reiterate, the purposes of this study were twofold. First, the study was undertaken to identify possible relationships between the knowledge of vocational laboratory teachers about tort liability concerning negligence and their practices of safety in the conduct of their classes. The study was also undertaken to secure baseline data that will serve as a basis for needed in-service and/or professional development workshops in the area of tort liability and laboratory safety practices for vocational teachers at the post-secondary level.

Two hundred ninety-seven vocational laboratory teachers from the twenty-eight technical colleges and institutes in Alabama participated in the investigation. The instrument used in gathering the data consisted of twenty "knowledge" items and twenty-four "practice" items. The Statistical Package for the Social Sciences (SPSS), second edition (1975), was used inasmuch as the frequencies, percentages, and correlations could be computed by this one program. The Pearson product-moment coefficient of correlation was used to determine the relationships among the continuous variables; Point Biserial coefficients were computed

between the dichotomous variable gender and the remaining variables; Kendall's rank correlation coefficient was used for categorical variables.

First, data will be presented showing the distribution of total scores for the knowledge items and the frequencies and percentages of responses to all of the knowledge items. Secondly, data will be shown relative to the distribution of total scores for the practice items and the frequencies and percentages of responses to all of the practice items. Finally, results will be presented from testing hypotheses.

ANALYSIS OF KNOWLEDGE ITEMS

There were twenty knowledge items in the instrument. The distribution of total scores for this section is shown in Table 1.

No respondent made a raw score of 20 or 100 percent. Two respondents had a raw score of 19 on this portion of the questionnaire. This represented less than 1 percent of the total participants. Sixteen respondents or 5 percent did not answer any of the items correctly. The mean score was 5.78 on the 20 knowledge items.

Table 2 presents the frequencies and percentages of responses to all of the knowledge items. Only four questions were answered correctly by one hundred or more respondents or 33 percent of the 297 participants. Question 8 regarding the definition of "pure accident" was answered correctly by 128 respondents or 43 percent. Question 18 regarding the immunity granted by waiver and permission slips was answered correctly by 112 respondents or 38 percent of the participants. Question 14 regarding the legal value of waiver and permission slips

Table 1

Distribution of Scores Concerning Knowledge of Tort
Liability of Vocational Laboratory Teachers

Number of Items Answered Correctly	Number of Respondents	Relative Frequency (PCT)	Cumulative Frequency (PCT)
0	16	5.4	5.4
1	36	12.1	17.5
2	48	16.2	33.7
3	56	18.9	52.5
4	17	5.7	58.2
5	10	3.4	61.6
6	7	2.4	64.0
7	1	0.3	64.3
8	10	3.4	67.7
9	12	4.0	71.7
10	14	4.7	76.4
11	21	7.1	83.5
12	9	3.0	86.5
13	15	5.1	91.6
14	9	3.0	94.6
15	6	2.0	96.6
16	3	1.0	97.6
17	4	1.3	99.0
18	1	0.3	99.3
19	2	0.7	100.0
TOTAL	297	100.0	

$$\bar{X} = 5.781$$

Table 2

Frequencies and Percentages of Responses to Knowledge Items
Concerning Tort Liability of Vocational
Laboratory Teachers

Question	Answer	Correct	Incorrect	No Response
1. That body of principles in law deriving its authority from usage and custom is referred to as	A. Common Law	78 (26.3)	213 (71.7)	6 (2.0)
2. Failure to act as a reasonably prudent person would under the same or similar circumstances refers to	A. Negligence	98 (33.0)	194 (65.3)	5 (1.7)
3. The teacher acting in place of the parent is referred to as	A. <u>In loco parentis</u>	96 (38.7)	182 (54.9)	19 (6.4)
4. Liability may result from	C. Neither direct or indirect activity if the result is foreseeable	17 (7.4)	275 (90.9)	5 (1.7)
5. A civil wrong committed upon the person of another refers to	A. Tort	81 (27.3)	209 (70.4)	7 (2.4)

Table 2 Continued

Question	Answer	Correct	Incorrect	No Response
6. Failure to take the necessary precautions for the protection of pupils refers to	B. An act of omission that might be considered to be negligent	22 (7.4)	272 (91.6)	3 (1.0)
7. A pupil who has deliberately violated a teacher's instructions has committed the legal act of	A. Assumption of risk	75 (25.3)	216 (72.7)	6 (2.0)
8. An accident which has occurred without an act of negligence refers to	D. Pure Accident	128 (43.1)	165 (55.6)	4 (1.3)
9. School districts as subdivisions of the state serving a governmental function have been immune from tort liability under the principle of	B. Common law immunity (sovereign immunity)	55 (18.5)	232 (78.1)	10 (3.4)
10. An accident due to a pupil voluntarily placing himself in a dangerous position refers to	B. Assumption of risk	80 (26.9)	211 (71.1)	6 (2.0)

Table 2 Continued

Question	Answer	Correct	Incorrect	No Response
11. Teachers have been held legally responsible for supervision which is	D. General in nature	69 (23.2)	222 (74.8)	6 (2.0)
12. First aid has been defined as care which is	B. Temporary	20 (6.7)	273 (92.0)	4 (1.3)
13. The responsibility of the teacher in regard to the inspection of equipment and facilities has been defined by the courts as	B. General in nature	54 (18.2)	235 (79.1)	8 (2.7)
14. Waiver and permission slips are held by the courts to be legally	C. Valueless	103 (34.7)	190 (64.0)	4 (1.3)
15. A teacher who has required a student to perform a task (beyond her/his skill ability in hazardous environment has legally committed	B. An act of commission that might be considered to be negligence	50 (16.8)	243 (81.9)	4 (1.3)
16. An accident which has been the result of a pupil acting in such a way as to contribute to her/his injury refers to	B. Contributory negligence	13 (4.4)	279 (93.9)	5 (1.7)

Table 2 Continued

Question	Answer	Correct	Incorrect	No Response
17. A teacher who has permitted a student to perform an operation on a piece of equipment with no prior instructions has acted	C. Negligently (imprudently; unreasonably)	9 (3.0)	279 (94.0)	9 (3.0)
18. Waiver and permission slips guarantee legal immunity for teachers	D. Never	112 (37.7)	176 (59.3)	9 (3.0)
19. A teacher who requires inexperienced pupils to use equipment beyond their capability refers to	C. An act of commission that might be considered to be negligence	56 (18.9)	232 (78.1)	9 (3.0)
20. The courts have stated that equipment and facilities utilized in the vocational education program should be inspected	A. Daily	104 (35.0)	182 (61.3)	11 (3.7)

was answered correctly by 103 respondents or 35 percent of the participants.

Five of the questions were answered incorrectly by 90 or more percent of the respondents. Question 17 regarding imprudent action on the part of the teacher was answered incorrectly by 279 respondents or 94 percent of the participants. Question 16 pertaining to contributory negligence was answered incorrectly by 279 respondents also or 94 percent. Question 12 pertaining to first aid was answered incorrectly by 273 respondents or 92 percent of the participants. Question 6 regarding an act of omission was answered incorrectly by 272 respondents or 92 percent of the respondents. Question 4 pertaining to liability was answered incorrectly by 275 respondents or 91 percent of the total number of participants. In each instance cited regarding number of respondents giving incorrect answers, the percentages were dependent upon correct answers, incorrect answers, and no responses.

A frequency of "no response" was registered for each of the twenty items. For question 3 regarding in loco parentis there were 19 persons who did not respond or 6 percent of the participants. This was the highest frequency of "no response." Question 20 regarding inspection of equipment was not responded to by 11 persons or 4 percent of the participants. Question 9 pertaining to sovereign immunity was not answered by 10 persons or 3 percent of the total participants. Questions 17, 18, and 19, relating to negligent action on the part of the teacher, waiver of permission slips and an act of commission, respectively, each was unanswered by 9 persons or 3 percent of the total participants.

ANALYSIS OF PRACTICE ITEMS

There were twenty-four practice items on the questionnaire. Table 3 illustrates the distribution of the total scores for this portion of the questionnaire.

Seventy-two respondents made a raw score of 24 representing 24 percent of the total. The mean score of the 297 participants was 22.108.

Table 4 presents the frequencies and percentages of all of the practice items. The practice statements were presented on a four-point Likert-type scale on a continuum from "always," "frequently," "seldom," to "never." To facilitate scoring, "always" and "frequently" were counted as correct answers. With the exception of questions 5 and 10, for which answers of "never" are correct, all answers of "seldom" and "never" were scored as incorrect answers.

For questions 5 and 10, for which the answer of "never" was correct, only 36 respondents or 12 percent of the participants and 14 or 5 percent of the participants, respectively, had correct answers. The highest number of correct answers for the other practice items was for item 12 for which 252 or 85 percent of the respondents gave "always" as the correct answer. For this same item, 37 respondents or 13 percent gave "frequently" as the answer. The combined total for correct responses was 97 percent. "Seldom" and "never" were chosen by 6 or 2 percent of the respondents. Two persons or less than 1 percent gave no response. This item was concerned with whether or not the teacher incorporates safety instruction in the course of study.

Table 3

Distribution of Scores Concerning Safety Practices
Of Vocational Laboratory Teachers

Number of Questions Answered Either Al- ways or Frequently (3 or 4)	Number of People	Percentage
7	1	0.3
14	2	0.7
15	1	0.3
16	1	0.3
17	5	1.7
18	8	2.7
19	15	5.1
20	9	3.0
21	37	12.5
22	57	19.2
23	89	30.0
24	72	24.2
TOTAL	297	100.0

$$\bar{X} = 22.108$$

$$S.D. = 2.073$$

Table 4

Frequencies and Percentages of Responses to Practice Items Concerning
Tort Liability of Vocational Laboratory Teachers

Practice	Response Category			
	Always	Frequently	Seldom	Never
	Frequency %	Frequency %	Frequency %	Frequency %
1. Do you inspect equipment and facilities prior to use each day?	82 27.6	187 63.0	26 8.8	1 0.3
2. Do you enforce safety rules in your classes?	227 76.4	66 22.2	2 0.7	0
3. Do you use an approved syllabus as a guide for instruction?	153 51.5	124 41.8	14 4.7	3 1.0
4. Do you utilize protective equipment when warranted?	234 78.8	57 19.2	3 1.0	1 0.3
5. Do you leave classes unattended?	78 26.3	118 39.7	65 21.9	36 12.1
6. Do you keep facilities locked when they are not in use?	184 62.0	84 28.3	17 5.7	8 2.7
7. Do you implement acceptable first aid procedures as defined by the American Red Cross when necessary?	173 58.2	84 28.3	27 9.1	10 3.4

Table 4 Continued

Practice	Always		Frequently		Seldom		Never	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
8. Do you report equipment and facilities which are in need of repair to the proper authorities?	240	80.8	52	17.5	1	0.3	2	0.7
9. Do you report all accidents regardless of severity on a form provided by the school administration?	180	60.6	74	24.9	31	10.4	8	2.7
10. Do you use equipment and facilities that are in need of repair?	90	30.3	116	39.1	76	25.6	14	4.7
11. Do you adapt class activities to the skill ability and physiology limits of students?	131	44.1	149	50.2	13	4.4	2	0.7
12. Do you incorporate safety instructions in the course of study?	252	84.8	37	12.5	5	1.7	1	0.3
13. Do you give instruction on hazards and accident prevention specific to a particular shop?	247	83.2	38	12.8	9	3.0	0	
14. Do you give instruction and promote activities which will lead to accident prevention in future employment?	200	67.3	84	28.3	2	0.7	8	2.7

Table 4 Continued

Practice	Always		Frequently		Seldom		Never	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
15. Do you foster student cooperation in accident prevention?	193	65.0	93	31.3	7	2.4	1	0.3
16. Do you follow all safety practices personally?	165	55.6	127	42.8	4	1.3	0	
17. Do you keep up to date on modern and accepted safe practices in the subject field?	164	55.2	123	41.4	6	2.0	0	
18. Do you revise shop facilities to provide for optimum safety conditions?	149	50.2	134	45.1	10	3.4	2	0.7
19. Do you carry out recommendations of administrator for improving safety instruction of safe working conditions?	245	82.5	45	15.2	5	1.7	0	
20. Do you devise and enforce safe housekeeping procedures?	214	72.1	79	26.6	3	1.0	0	
21. Do you provide for the use of necessary personal protective equipment?	205	69.0	77	25.9	9	3.0	4	1.3

Table 4 Continued

Practice	Always		Frequently		Seldom		Never	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
22. Do you develop specific safe practices and regulations?	176	59.3	114	38.4	4	1.3	1	0.3
23. Do you develop an appropriate student personnel system?	142	47.8	118	39.7	22	7.4	7	2.4
24. Do you make recommendations to administrators for improving shop safety conditions?	142	47.8	120	40.4	28	9.4	3	1.0

The next five items which received the highest percentage of correct answers for the combined categories were items 2, 8, 4, 19, and 13, respectively. These practices include enforcing safety rules in class (99 percent); reporting equipment and facilities in need of repair (98 percent); utilizing protective equipment (98 percent); carrying out recommendations of the administration for improving safety (98 percent); and giving instructions on hazards in a particular shop (96 percent).

Item 1 regarding daily inspection of equipment and facilities received the least number of correct responses for combined categories of "always" and "frequently." The combined frequencies was a total of 269 respondents or 91 percent of the total participants.

RESULTS FROM TESTING HYPOTHESES

The Pearson product-moment coefficient of correlation was used to determine the relationship between the continuous variables; a point biserial was used for the dichotomous variable gender; Kendall rank correlation coefficients were used for categorical variables. The hypotheses examined by these coefficients are discussed in the same order as in Chapter 1. A summary of these relationships is presented in Table 5.

Hypothesis One: No significant relationship exists between teacher knowledge and practice.

The Pearson correlation coefficient between these two variables was .017, which was not significant at $p < .05$. A scattergram of the data is presented in Table 6.

Table 5

Summary of Measures of Association Among the Variables

	Age	Industrial Experience	Teaching Experience	Total Knowledge	Total Practice	Location	Education ¹
Sex	-.0130 (S=.413)	.0087 (S=.442)	.0028 (S=.481)	.0722 (S=.108)	-.0047 (S=.468)	-.0047 (S=.021)	.0184 (S=.379)
Age		.5973* (S=.001)	.4982* (S=.001)	-.0052 (S=.465)	.1171* (S=.023)	-.0381 (S=.210)	-.0837* (S=.046)
Industrial Experience			.0505 (S=.196)	.0486 (S=.205)	.2247* (S=.001)	-.0376 (S=.220)	-.1179* (S=.009)
Teaching Experience				.0877 (S=.067)	-.0488 (S=.202)	.0011 (S=.491)	.1412 (S=.002)
Total Knowledge					.0170 (S=.385)	.0962* (S=.023)	.0546 (S=.143)
Total Practice						.0466 (S=.178)	-.1529* (S=.002)
Location ¹							.0169 (S=.385)

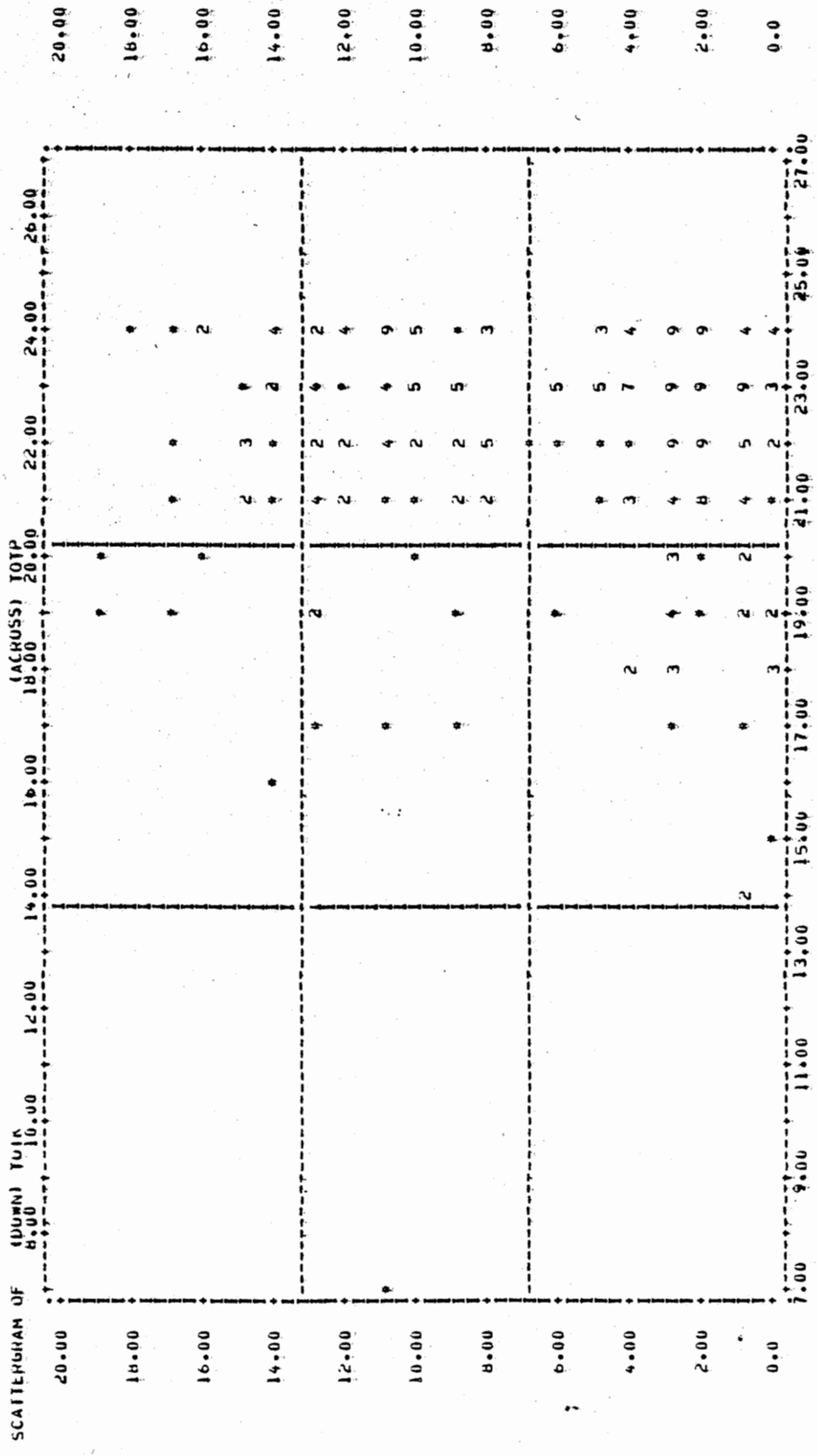
*Significant at the .05 level

¹The coefficients computed with Location and Education and the other variables are Kendall's rank correlation coefficients. The other statistics are Pearson product-moment correlations.

Table 6

Relationship Between Knowledge and Practices of Vocational Laboratory Teachers Regarding Tort Liability

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STATISTICS..

CORRELATION (R) -	0.01697	R SQUARED	-	0.00029	SIGNIFICANCE	-	0.38542
STD ERR OF EST -	4.90407	INTERCEPT (A) -	-	4.89508	SLOPE (B)	-	0.04008
PLOTTED VALUES -	297	EXCLUDED VALUES -	-	0	MISSING VALUES -	-	0

No significant relationship existed between knowledge and practice. The null hypothesis was retained.

Hypothesis Two: No relationship exists between teacher knowledge and the location of the school--urban, suburban, or rural.

The data concerning teacher knowledge and the location of the technical college or institute reflected that of the 297 respondents, 81 were rural, 126 urban, and 72 suburban. Seventeen participants did not respond.

The Kendall coefficient was .0962, significant at $\rho \leq .05$. Therefore, the null hypothesis was rejected.

Hypothesis Three: No relationship exists between teacher knowledge and the level of training.

Of the 297 participants in the study, 128 listed high school as the highest level of education completed. One hundred twenty-six respondents reported having completed college and sixteen respondents reported having received post-baccalaureate degrees. Twenty-seven persons did not respond to this item.

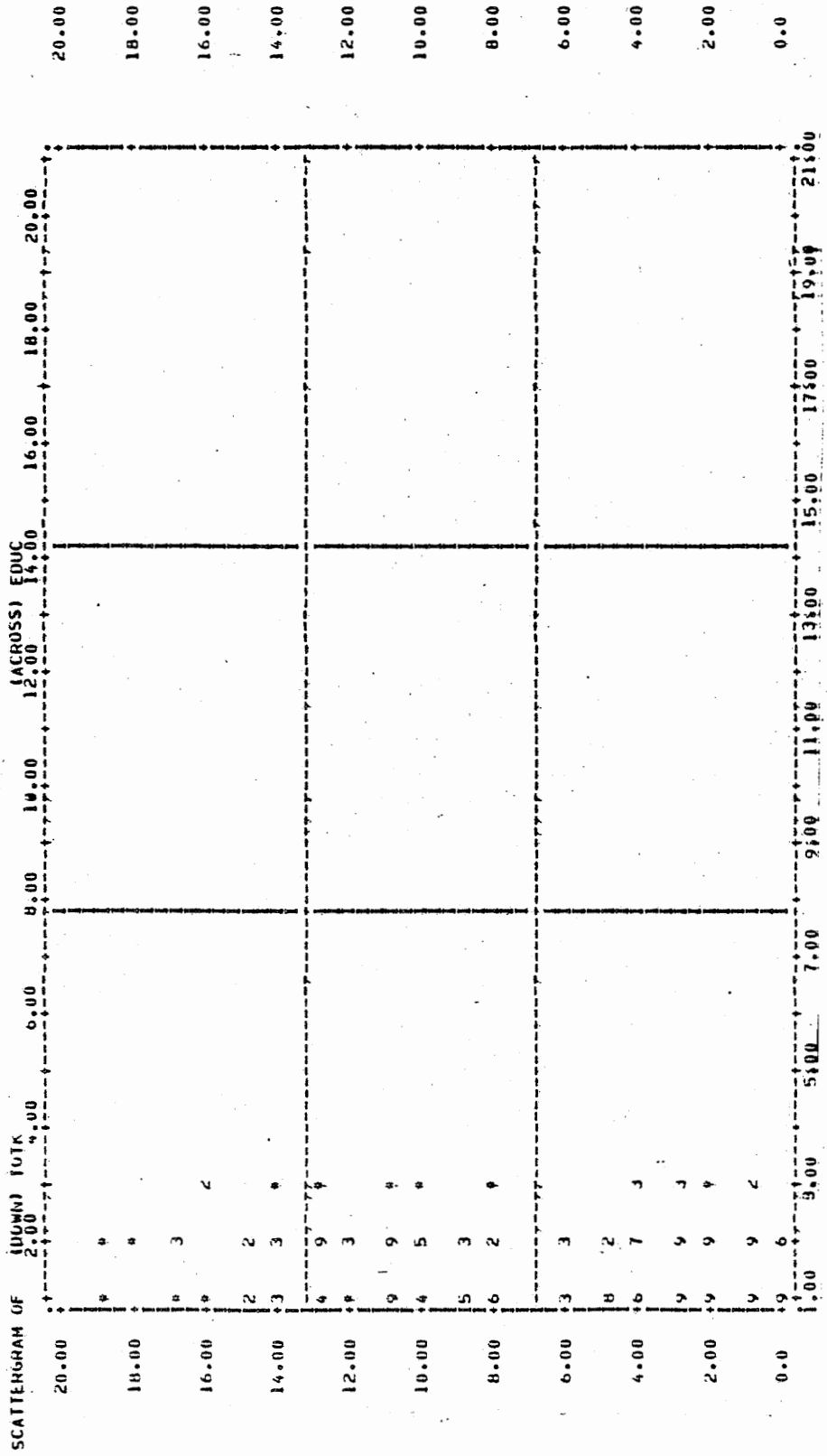
The coefficient for this item was .0546, not significant at $\rho \leq .05$. Therefore, the null hypothesis was retained. The data for this hypothesis are reflected in Table 7.

Hypothesis Four: No relationship exists between teacher knowledge and the gender of the teacher.

Of the 297 participants, 263 were male and 33 were female. One respondent did not list gender. The data for this hypothesis are reflected in Table 8.

Table 7

Relationship Between Knowledge of Vocational Laboratory Teachers
Regarding Tort Liability and Level of Training



STATISTICS..

CORRELATION (R)	.0546	R SQUARED	-	0.00804	SIGNIFICANCE	-	.143
STD ERR OF EST	4.84022	INTERCEPT (A)	-	4.26974	SLOPE (B)	-	0.72236
PLOTTED VALUES	270	EXCLUDED VALUES	-	0	MISSING VALUES	-	27

Table 8

Frequencies and Percentages of Vocational Laboratory
 Teachers Regarding Tort Liability and Gender
 (Distribution of Correct Responses)

Test Item	Male Frequency	Percentage	Female Frequency	Percentage
1	70	27	8	24
2	84	32	14	42
3	79	30	17	52
4	81	31	17	52
5	71	27	10	30
6	108	41	11	33
7	64	24	11	33
8	76	29	13	39
9	63	24	8	24
10	56	21	8	24
11	0	0	0	0
12	0	0	0	0
13	78	30	8	24
14	145	55	15	46
15	54	21	7	21
16	42	16	5	15
17	97	37	10	30
18	8	3	1	3
19	93	35	15	46
20	103	39	9	27

The analysis revealed an insignificant coefficient, thus indicating no relationship between knowledge and gender. The null hypothesis was, therefore, retained.

Hypothesis Five: No relationship exists between teacher knowledge and years of teaching experience.

Data presented in Table 9 show that one respondent or .3 percent had 37 years of experience which was the largest number of years, and 24 or less than 1 percent had one year. The mean score was 9.39 years of experience.

The analysis revealed no relationship between knowledge and teaching experience as reflected in Table 10. Therefore, the null hypothesis was retained.

Hypothesis Six: No relationship exists between teacher knowledge and age.

Table 11 shows that the age range was from 22 to 69 years with the mean being 45.28.

The analysis shown in Table 12 reveals no relationship between age of respondent and knowledge. The null hypothesis was retained.

Hypothesis Seven: No relationship exists between knowledge and years of experience in industry.

Table 13 shows the highest level of industrial experience as 57 years or less than 1 percent. One respondent had one year of industrial experience. Seven respondents had no industrial experience. The mean score was 17.11.

The analysis as shown in Table 14 reveals no relationship between knowledge and years of industrial experience. The null

Table 9

Frequencies and Percentages of Vocational Laboratory
Teachers Concerning Tort Liability and Years
of Teaching Experience of Respondents

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
1.	24	8.1	9.1
2.	26	8.8	17.8
3.	21	7.1	24.9
4.	19	6.4	31.3
5.	10	3.4	34.7
6.	11	3.7	38.4
7.	14	4.7	43.1
8.	11	3.7	46.8
9.	17	5.7	52.5
10.	24	8.1	60.6
11.	14	4.7	65.3
12.	30	10.1	75.4
13.	15	5.1	80.5
14.	14	4.7	85.2
15.	9	3.0	88.2
16.	2	0.7	88.9
17.	4	1.3	90.2
18.	1	0.3	90.6
19.	3	1.0	91.6
20.	4	1.3	92.9
21.	3	1.0	93.9
22.	2	0.7	94.6
25.	2	0.7	95.3
26.	1	0.3	95.6
27.	2	0.7	96.3
28.	2	0.7	97.0

Table 9 Continued

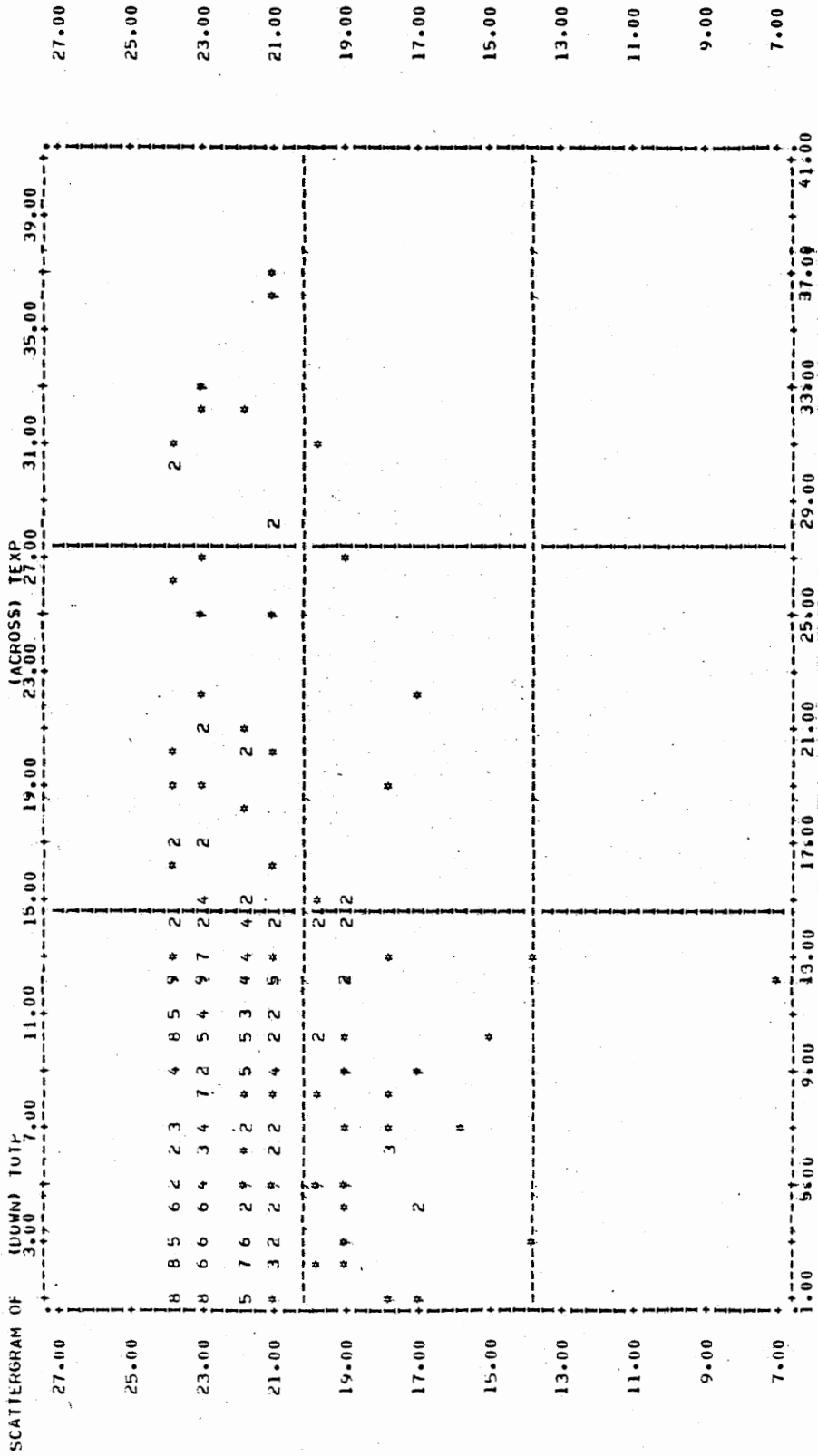
Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
30.	2	0.7	97.6
31.	2	0.7	98.3
32.	2	0.7	99.0
33.	1	0.3	99.3
36.	1	0.3	99.7
37.	1	0.3	100.0
Total	297	100.0	

Mean	9.394	STD ERR	0.413	Median	9.059
Mode	12.000	STD DEV	7.115	Variance	50.624
Kurtosis	2.059	SKEWNESS	1.275	Range	37.000
Minimum	0.0	Maximum	37.000		

Valid Cases	297	Missing Cases	0
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Table 10

Relationship Between Knowledge of Vocational Laboratory Teachers
Concerning Tort Liability and Years of Teaching Experience



STATISTICS...

CORRELATION (R)	.0877	R SQUARED	-	SIGNIFICANCE	-
SID ERR OF EST	2.07567	INTERCEPT (A)	-	SLOPE (B)	-0.01428
PLOTTED VALUES	294	EXCLUDED VALUES	-	MISSING VALUES	3

Table 11

Frequencies and Percentages of Negligence Concerning
Tort Liability and Age of Respondents

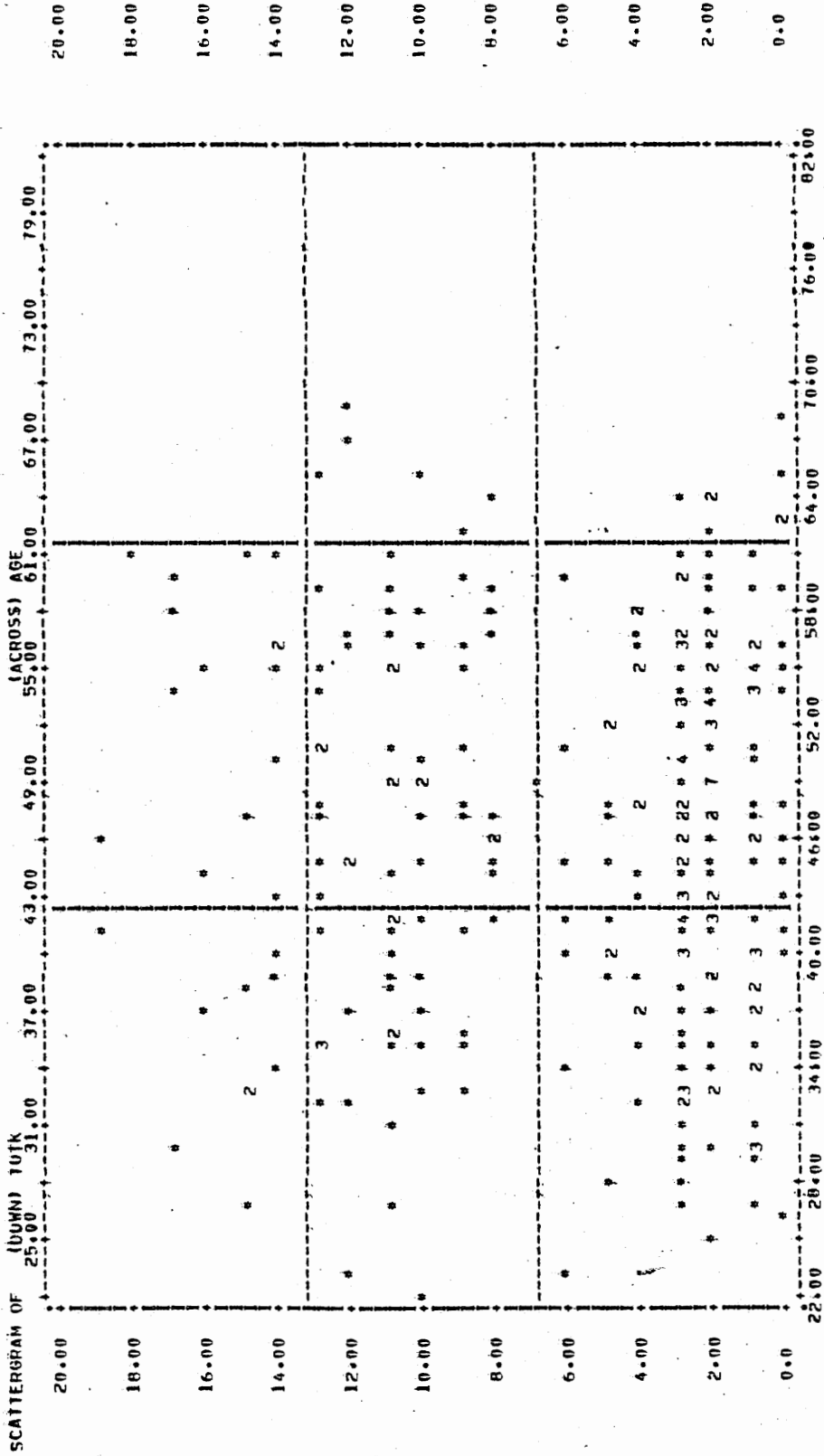
Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
22.	1	0.3	2.4
23.	2	0.7	3.0
25.	1	0.3	3.4
26.	1	0.3	3.7
27.	4	1.3	5.1
28.	2	0.7	5.7
29.	2	0.7	6.4
30.	6	2.0	8.4
31.	3	1.0	9.4
32.	5	1.7	11.1
33.	9	3.0	14.1
34.	6	2.0	16.2
35.	10	3.4	19.5
36.	4	1.3	20.9
37.	9	3.0	23.9
38.	5	1.7	25.6
39.	7	2.4	27.9
40.	12	4.0	32.0
41.	7	2.4	34.3
42.	14	4.7	39.1
43.	9	3.0	42.1
44.	6	2.0	44.1
45.	12	4.0	48.1
46.	9	3.0	51.2
47.	11	3.7	54.9
48.	9	3.0	57.9
49.	13	4.4	62.3
50.	7	2.4	64.6

Table 11 Continued

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
51.	7	2.4	67.0
52.	6	2.0	69.0
53.	7	2.4	71.4
54.	8	2.7	74.1
55.	16	5.4	79.5
56.	13	4.4	83.8
57.	8	2.7	86.5
58.	7	2.4	88.9
59.	6	2.0	90.9
60.	6	2.0	92.9
61.	7	2.4	95.3
62.	2	0.7	96.0
63.	2	0.7	96.6
64.	4	1.3	98.0
65.	3	1.0	99.0
67.	1	0.3	99.3
68.	1	0.3	99.7
69.	1	0.3	100.0
TOTAL	297	100.0	

Table 12

Relationship Between Knowledge of Tort Liability Concerning Negligence and Age of Respondents



STATISTICS..

CORRELATION (R) -	-0.00523	R SQUARED	-	0.00003	SIGNIFICANCE	-	0.46460
STD ERR OF EST -	4.92688	INTERCEPT (A) -	-	5.94620	SLOPE (B)	-	-0.00255
PLOTTED VALUES -	291	EXCLUDED VALUES -	-	0	MISSING VALUES -	-	6

Table 13

Frequencies and Percentages of Negligence Concerning
Tort Liability and Years of Industrial Experience

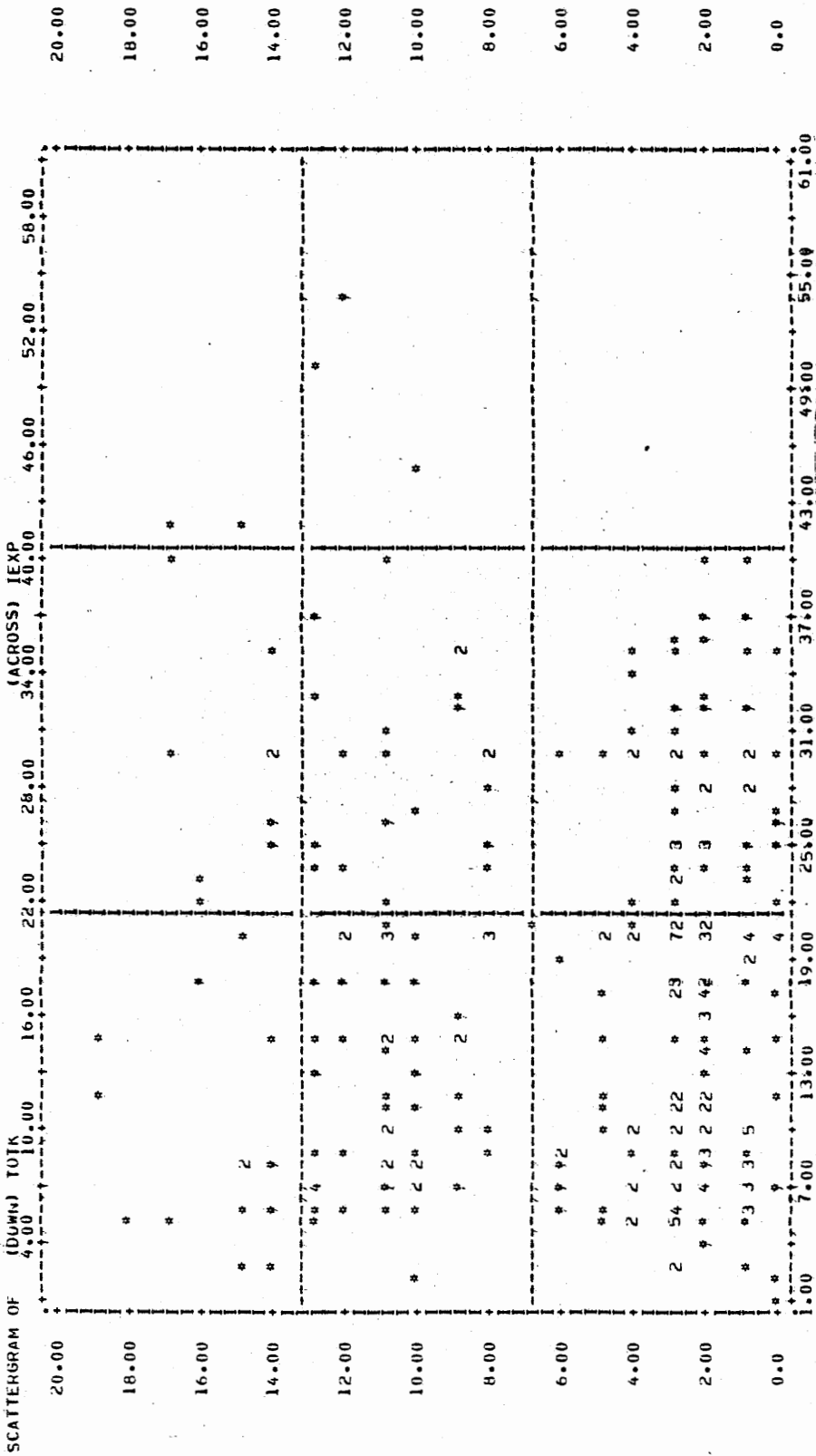
Years of Experience	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
1.	1	0.3	2.7
2.	2	0.7	3.4
3.	5	1.7	5.1
4.	1	0.3	5.4
5.	13	4.4	9.8
6.	15	5.1	14.8
7.	21	7.1	21.9
8.	14	4.7	26.6
9.	12	4.0	30.6
10.	16	5.4	36.0
11.	7	2.4	38.4
12.	9	3.0	41.4
13.	3	1.0	42.4
14.	6	2.0	44.4
15.	13	4.4	48.8
16.	4	1.3	50.2
17.	8	2.7	52.9
18.	11	3.7	56.6
19.	3	1.0	57.6
20.	32	10.8	68.4
21.	7	2.4	70.7
22.	5	1.7	72.4
23.	4	1.3	73.7
24.	6	2.0	75.8
25.	11	3.7	79.5
26.	3	1.0	80.5
27.	3	1.0	81.5

Table 13 Continued

Years of Experience	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
28.	6	2.0	83.5
30.	17	5.7	89.2
31.	3	1.0	90.2
32.	4	1.3	91.6
33.	3	1.0	92.6
34.	1	0.3	92.9
35.	7	2.4	95.3
36.	2	0.7	96.0
37.	3	1.0	97.0
40.	4	1.3	98.3
42.	2	0.7	99.0
45.	1	0.3	99.3
50.	1	0.3	99.7
54.	1	0.3	100.0

$$\bar{X} = 17.118$$

Relationship Between Knowledge of Tort Liability Regarding
Negligence and Years of Industrial Experience



STATISTICS..

CORRELATION (R) =	0.04862	R SQUARED	-	0.00236	SIGNIFICANCE	-	0.20474
STD ERR OF EST	4.93892	INTERCEPT (A)	-	5.39092	SLOPE (B)	-	0.02353
PLOTTED VALUES	290	EXCLUDED VALUES	-	0	MISSING VALUES	-	7

hypothesis for this item was, therefore, retained.

Hypothesis Eight: No relationship exists between practices and procedures and location of school--urban, suburban, and rural.

The analysis for this hypothesis revealed that no relationship exists between practice and location. This hypothesis was, therefore, retained.

Hypothesis Nine: No relationship exists between practices and level of training of the teacher.

The analysis indicates Kendall's coefficient of $-.1529$, significant at $\rho \leq .05$. A scattergram of the data is shown in Table 15. The null hypothesis was, therefore, rejected.

Hypothesis Ten: No relationship exists between practices and gender.

The analysis reveals no significant relationship between practice and gender. The null hypothesis was, therefore, retained.

Hypothesis Eleven: No relationship exists between practice and number of years of teaching experience.

The analysis as shown in Tables 17 and 18 reflects no relationship between practice and years of teaching experience. The null hypothesis was, therefore, retained.

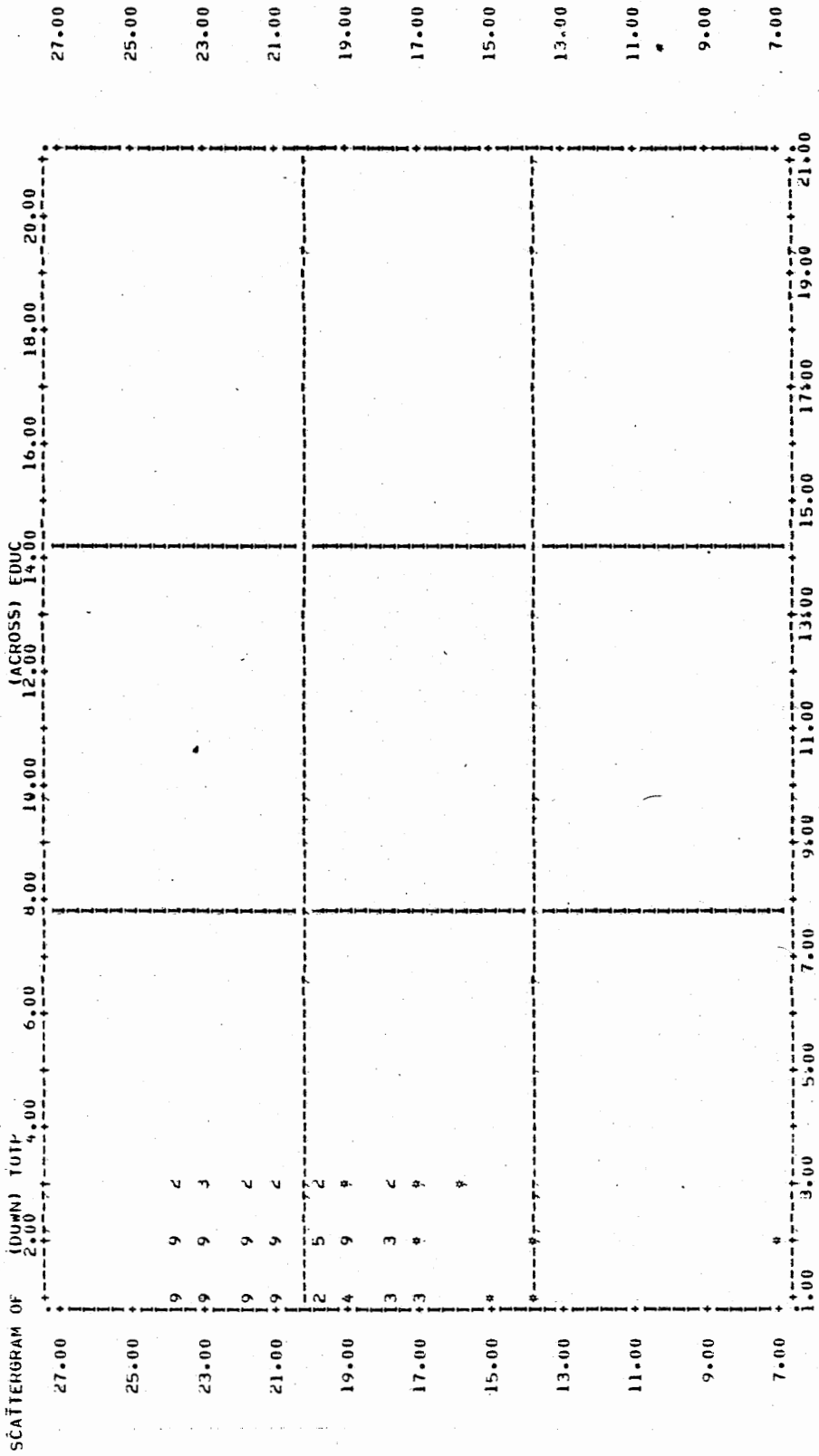
Hypothesis Twelve: No relationship exists between practice and age of the teacher.

Table 19 shows the analysis which reflects the correlation coefficient of $.1171$, indicating a significant relationship between practice and age. The null hypothesis was, therefore, rejected.

A scattergram of the data is presented in Table 20.

Table 15

Relationship Between Safety Practices and Level of Training of Respondents



STATISTICS..

CORRELATION (R)	R SQUARED	SIGNIFICANCE
-.1529	0.02014	.002
STD ERR OF EST	INTERCEPT (A)	SLOPE (B)
2.10006	22.99453	-0.59235
PLOTTED VALUES	EXCLUDED VALUES	MISSING VALUES
270	0	27

Table 16

Frequencies and Percentages of Vocational
Laboratory Teachers and Gender

Practice Items	Male	Percentage	Female	Percentage
1	239	91	29	88
2	261	99	31	94
3	247	94	29	88
4	258	98	32	97
5	168	64	28	85
6	237	90	30	91
7	226	86	31	94
8	259	99	32	97
9	225	86	28	85
10	180	68	26	79
11	249	95	31	94
12	257	98	31	94
13	253	96	31	94
14	252	96	31	94
15	255	97	30	91
16	260	99	31	94
17	255	97	31	94
18	252	96	30	91
19	257	98	32	97
20	260	99	32	97
21	249	95	32	97
22	257	98	32	97
23	230	88	30	91
24	232	88	29	88

Table 17

Frequencies and Percentages of Safety Practices and Years of Teaching Experience of the Respondents

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
1.	24	8.1	8.2
2.	26	8.8	17.0
3.	21	7.1	24.1
4.	19	6.4	30.6
5.	10	3.4	34.0
6.	11	3.7	37.8
7.	14	4.7	42.5
8.	11	3.7	46.3
9.	17	5.7	52.0
10.	24	8.1	60.2
11.	14	4.7	65.0
12.	30	10.1	75.2
13.	15	5.1	80.3
14.	14	4.7	85.0
15.	9	3.0	88.1
16.	2	0.7	88.8
17.	4	1.3	90.1
18.	1	0.3	90.5
19.	3	1.0	91.5
20.	4	1.3	92.9
21.	3	1.0	93.9
22.	2	0.7	94.6
25.	2	0.7	95.2
26.	1	0.3	95.6
27.	2	0.7	96.3
28.	2	0.7	96.9
30.	2	0.7	97.6

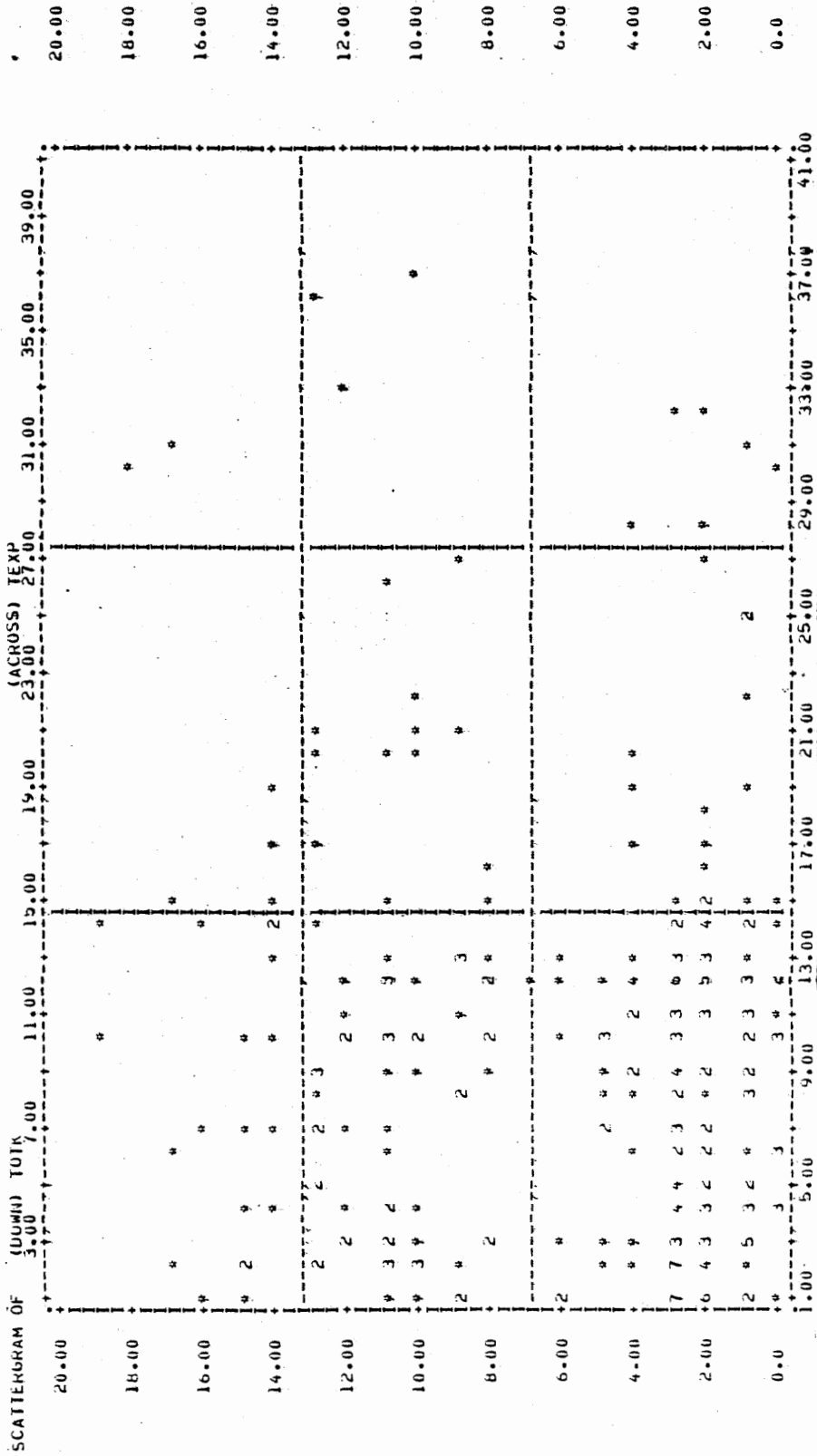
Table 17 Continued

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
31.	2	0.7	98.3
32.	2	0.7	99.0
33.	1	0.3	99.3
36.	1	0.3	99.7
37.	1	0.3	100.0
99.	3	1.0	100.0
TOTAL	297	100.0	

Mean	9.490	Median	9.147	STD Dev	7.087
Minimum	1.000	Maximum	37.000		
Valid Cases	294	Missing Cases	3		

Table 18

Relationship Between Safety Practices and Teaching Experience of Respondents



STATISTICS..

CORRELATION (R)	-0.0488	R SQUARED	-	0.00769	SIGNIFICANCE	-	.202
STD ERR OF EST	4.90405	INTERCEPT (A)	-	5.20192	SLOPE (B)	-	0.06080
PLOTTED VALUES	294	EXCLUDED VALUES	0		MISSING VALUES	-	3

Table 19

Frequencies and Percentages of Safety Practices
and Age of the Respondents

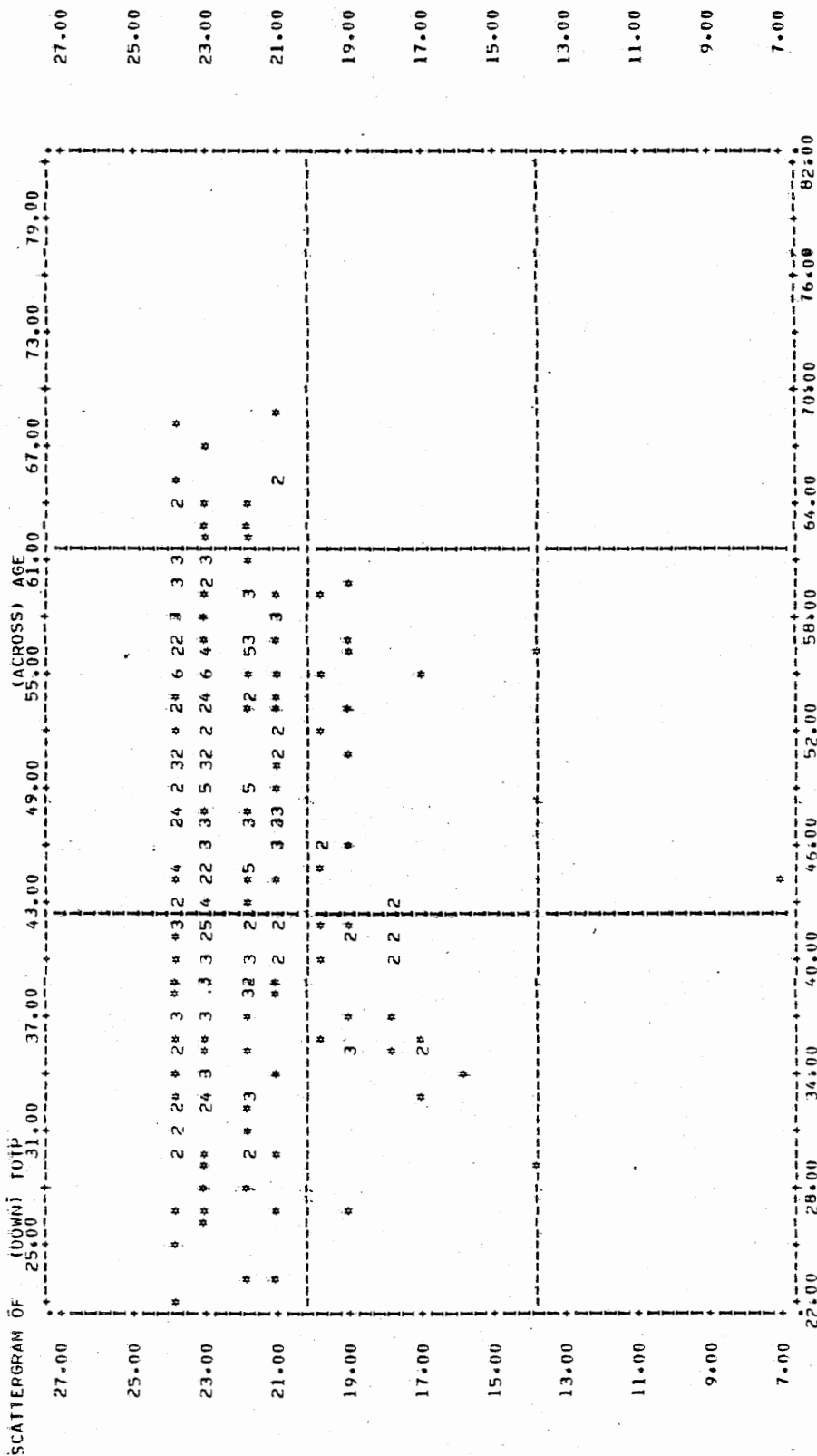
Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
22.	1	0.3	0.3
23.	2	0.7	1.0
25.	1	0.3	1.4
26.	1	0.3	1.7
27.	4	1.3	3.1
28.	2	0.7	3.8
29.	2	0.7	4.5
30.	6	2.0	6.5
31.	3	1.0	7.6
32.	5	1.7	9.3
33.	9	3.0	12.4
34.	6	2.0	14.4
35.	10	3.4	17.9
36.	4	1.3	19.2
37.	9	3.0	22.3
38.	5	1.7	24.1
39.	7	2.4	26.5
40.	12	4.0	30.6
41.	7	2.4	33.0
42.	14	4.7	37.8
43.	9	3.0	40.9
44.	6	2.0	43.0
45.	12	4.0	47.1
46.	9	3.0	50.2
47.	11	3.7	54.0
48.	9	3.0	57.0
49.	13	4.4	61.5

Table 19 Continued

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
50.	7	2.4	63.9
51.	7	2.4	66.3
52.	6	2.0	68.4
53.	7	2.4	70.8
54.	8	2.7	73.5
55.	16	5.4	79.0
56.	13	4.4	83.5
57.	8	2.7	86.3
58.	7	2.4	88.7
59.	6	2.0	90.7
60.	6	2.0	92.8
61.	7	2.4	95.2
62.	2	0.7	95.9
63.	2	0.7	96.6
64.	4	1.3	97.9
65.	3	1.0	99.0
67.	1	0.3	99.3
68.	1	0.3	99.7
69.	1	0.3	100.0
99.	6	2.0	100.0
TOTAL	297	100.0	

Table 20

Relationship Between Safety Practices and Age of the Respondents



STATISTICS..

STATISTIC	VALUE	STATISTIC	VALUE
CORRELATION (R)	0.11705	R SQUARED	-
STD ERR OF EST	2.02962	INTERCEPT (A)	-
PLOTTED VALUES	291	EXCLUDED VALUES	0
		SIGNIFICANCE	0.02302
		SLOPE (B)	0.02370
		MISSING VALUES	6

Table 21

Frequencies and Percentages of Safety Practices and Industrial
Experience of Respondents

Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
1.	1	0.3	0.3
2.	2	0.7	1.0
3.	5	1.7	2.8
4.	1	0.3	3.1
5.	13	4.4	7.6
6.	15	5.1	12.8
7.	21	7.1	20.0
8.	14	4.7	24.8
9.	12	4.0	29.0
10.	16	5.4	34.5
11.	7	2.4	36.9
12.	9	3.0	40.0
13.	3	1.0	41.0
14.	6	2.0	43.1
15.	13	4.4	47.6
16.	4	1.3	49.0
17.	8	2.7	51.7
18.	11	3.7	55.5
19.	3	1.0	56.6
20.	32	10.8	67.6
21.	7	2.4	70.0
22.	5	1.7	71.7
23.	4	1.3	73.1
24.	6	2.0	75.2
25.	11	3.7	79.0
26.	3	1.0	80.0
27.	3	1.0	81.0

Table 21 Continued

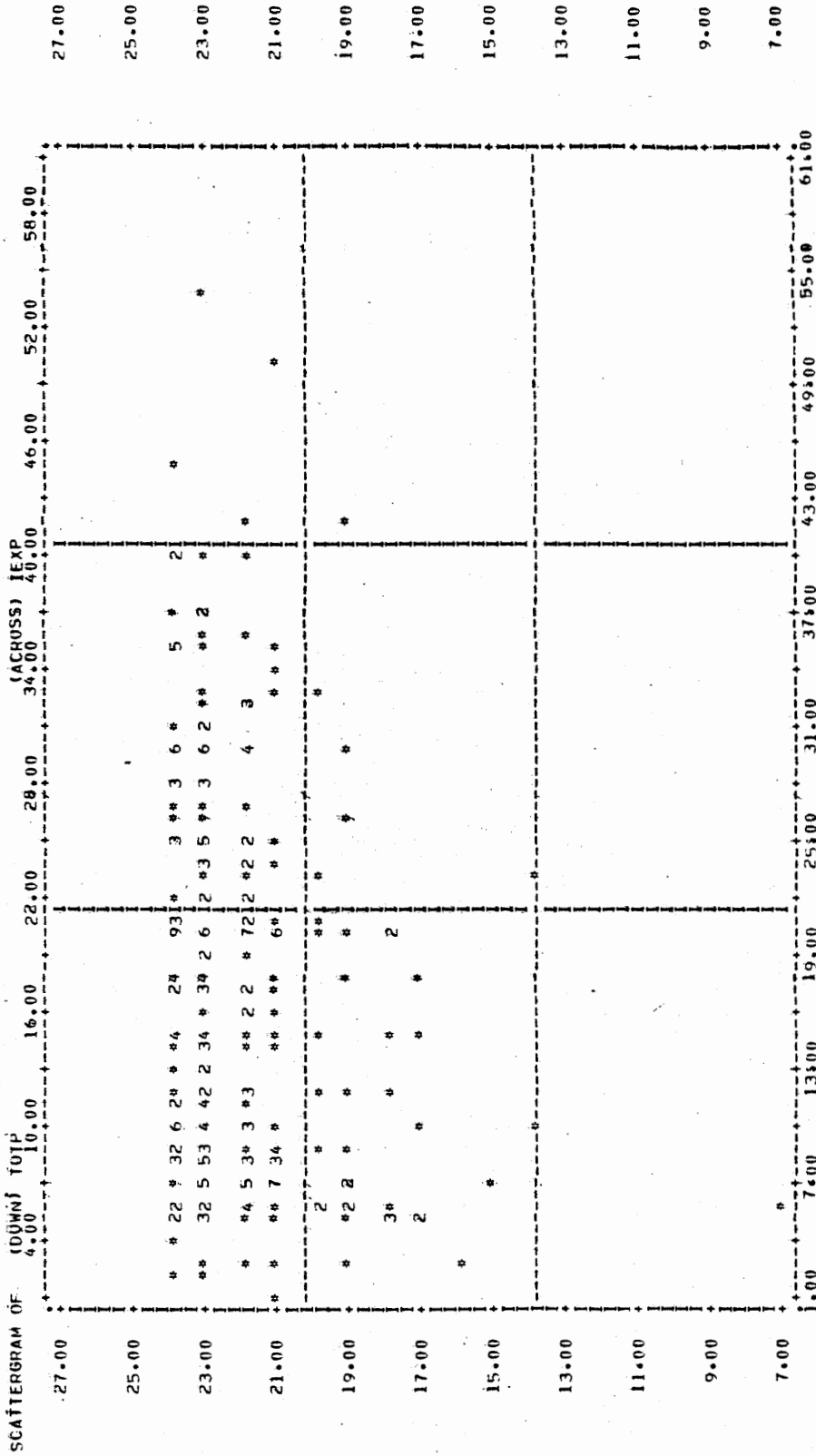
Code	Absolute Frequency	Relative Frequency (PCT)	Cumulative Frequency (PCT)
28.	6	2.0	83.1
30.	17	5.7	89.0
31.	3	1.0	90.0
32.	4	1.3	91.4
33.	3	1.0	92.4
34.	1	0.3	92.8
35.	7	2.4	95.2
36.	2	0.7	95.9
37.	3	1.0	96.9
40.	4	1.3	98.3
42.	2	0.7	99.0
45.	1	0.3	99.3
50.	1	0.3	99.7
54.	1	0.3	100.0
99.	7	2.4	100.0
TOTAL	297	100.0	

Mean	17.531	Median	16.875	STD Dev.	10.198
Minimum	1.000	Maximum	54.000		

Valid Cases	290	Missing Cases	7
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Table 22

Relationship Between Safety Practices and Industrial Experience of Respondents



STATISTICS**

CORRELATION (R) -	0.22466	R SQUARED	-	0.05047	SIGNIFICANCE	-	0.00006
STD ERR OF EST *	2.02558	INTERCEPT (A) -	-	21.30892	SLOPE (B)	-	0.04571
PLOTTED VALUES -	290	EXCLUDED VALUES -	0		MISSING VALUES -		7

Hypothesis Thirteen: No relationship exists between practice and industrial experience.

The analysis reveals a correlation of .2247 between practice and years of industrial experience. This coefficient was significant at $\rho \leq .05$. The null hypothesis was, therefore, rejected.

A scattergram of the data is presented in Table 22.

SUMMARY

The statistical analysis and interpretation of the data in this study showed that of the thirteen null hypotheses investigated, four were rejected at the .05 level, and nine null hypotheses were not rejected. The Pearson product-moment, Point Biserial, and Kendall's rank correlation coefficients were used to determine the relationships among the variables.

Chapter 5

SUMMARY, CONCLUSIONS, DISCUSSION OF DATA, AND RECOMMENDATIONS

SUMMARY

Problem

The central problem in this study was to ascertain the knowledge level of vocational laboratory teachers in technical colleges and institutes in Alabama regarding tort liability. Furthermore, the study sought to determine the extent to which these same teachers observed and enforced safety procedures in the conduct of their vocational laboratory classes.

The investigator proposed to determine whether relationships existed between knowledge and practice and the factors of location of the school--urban, suburban, or rural; level of education; teaching experience; age; gender; and industrial experience. It was assumed that all participants responded honestly and candidly to the questionnaire used to collect the data. This assumption is supported by logical reasoning, empirical evidence, and authoritative statements.

Research Methodology

Participants in the study were limited to the vocational laboratory teachers in the technical colleges and institutes in Alabama. The researcher did not make a random selection of vocational laboratory teachers, but included all vocational laboratory teachers

as identified by the president/director of each institution upon the researcher's visit to each institution.

A three-part restricted form questionnaire was used in the data collection process. Part A contained eight items designed to collect personal data relative to the participants. Part B was composed of twenty items designed to assess the knowledge of the participants concerning tort liability and negligence. Part C was composed of twenty-four items designed to assess the practices which related to the participants as vocational laboratory teachers.

The instrument was delivered to each of the twenty-eight technical colleges and institutes in Alabama by the researcher. The main purpose of this procedure was to insure 100 percent participation in the survey. In addition, this method offset the usual delay encountered by researchers often requiring a first, second, or third follow-up letter because questionnaires are not returned.

Data obtained from the instrument were used as a means of determining the knowledge and practices of vocational laboratory teachers in the technical colleges and institutes in Alabama.

In order to facilitate scoring, the responses to the questionnaire were key punched. The deck of data cards assembled in this process provided the individual response used in the statistical analysis. The Statistical Package for the Social Sciences (SPSS), second edition (1975), was used inasmuch as the frequencies, percentages, and correlations could be computed by this one program. Pearson product-moment, Point Biserial, and Kendall's rank correlation coefficients were used to determine the relationships among the variables.

Results

No significant relationship was found between knowledge and safety practices of vocational laboratory teachers. There was no significant relationship between the variables--teaching experience, gender, age, and industrial experience--and knowledge level of the vocational laboratory teachers regarding tort liability concerning negligence. There was no significant relationship between the variables of location, teaching experience, age, and industrial experience and the safety practices and procedures used by the vocational laboratory teachers. The null hypotheses for these variables were retained.

A significant relationship existed between the variables of education and location, location and practices, location and gender, and total practices and age used by the vocational laboratory teachers. The null hypotheses for these four variables were, therefore, rejected.

CONCLUSIONS

The conclusions reached here were based on the results of the study and, as such, were bound by the assumptions and limitations in Chapter 1. They are as follows:

1. Vocational laboratory teachers have limited knowledge concerning the body of law regarding negligence and tort liability.
2. Safety practices and procedures exceed the knowledge concerning the body of law regarding negligence and tort liability among the vocational laboratory teachers in technical colleges and institutes in Alabama.

3. No significant relationship was found between knowledge of tort liability concerning negligence and safety practices of post-secondary vocational laboratory teachers.

4. There was no significant relationship between the variables of location of institution, level of education, gender, and teaching experience and knowledge of the vocational laboratory teachers in the technical schools and institutes in Alabama regarding tort liability and negligence.

DISCUSSION OF DATA

The results of the analysis of the data relative to the hypotheses in this study reflect that there is no relationship between knowledge of tort liability regarding negligence and safety practices and procedures among the 297 participants in the study. Findings of this study support the proposition that the vocational laboratory teachers in the technical colleges and institutes in Alabama have limited knowledge concerning the various aspects of tort liability regarding negligence. However, the responses of the participants on the "practice" portion of the instrument indicate a higher level of response than on the "knowledge" portion of the questionnaire.

In Chapter 2, Review of Literature, it was pointed out that vocational laboratory teachers are doubtful regarding where their rights and responsibilities begin and end. The preponderance of cases cited in the literature indicates that the teachers in these high risk areas fail to utilize to the limit the legal defenses available to them.

The analysis of the items on the "knowledge" portion of the instrument used in this study underscores this point. For each of the items pertaining to knowledge of law, there were more incorrect answers than correct answers. The highest number of incorrect answers was for items 16 and 17 dealing with contributory negligence and imprudent or unreasonable action on the part of the teacher, respectively. Of the 297 participants, 279 answered each of these items incorrectly. With regard to contributory negligence, Kallen (1971) points out that where there is a child plaintiff, "the judge will rule as a matter of law that very young children cannot be found contributorily negligent under any circumstances" (p. 24). Lack of knowledge regarding contributory negligence, then, would appear to mitigate against the teacher if legal action is taken by a student or parent/guardian.

When the teacher is unaware of what constitutes negligent, imprudent, and unreasonable behavior as was indicated in the 279 incorrect answers to item 17 in the knowledge portion of the questionnaire, he/she creates a situation where liability might result. The doctrine of "reasonable prudent behavior" was explored in Chapter 2.

Items 4 and 6 regarding foreseeability and an act of omission received the next highest number of incorrect responses--275 and 272, respectively. Yet, according to Alexander (1973) the first test of negligence is the test of foreseeability. Kallen (1971) relates foreseeability to reasonable prudent action, which he states permeates the law regarding negligence. Both items 4 and 6 are related in that both refer to the teacher's failure to act or not in a particular situation.

The next highest number of incorrect responses was for item 15 pertaining to an act of commission that might be considered negligent. Two hundred forty-three or 81.9 percent gave incorrect responses. This item is also tied to the theory of foreseeability resulting in liability. Related to item 15 is item 19 also pertaining to an act of commission that might be considered to be negligence. Of the 297 responses, 232 were incorrect.

Of the twenty knowledge items on the questionnaire, fourteen had more than two hundred or 67 percent incorrect responses. This clearly indicates that only 30 percent of the respondents had fair to adequate knowledge of the laws regarding liability concerning negligence while 70 percent had little or no knowledge on the subject. These findings could have great implications for faculty development and curriculum changes in the area of vocational technical education.

The data pertaining to practices and procedures used by the vocational laboratory teachers in the technical schools and institutes in Alabama reflect that there is no significant relationship between knowledge and practice. For each of the practice items 1-4, 85 percent or more of the respondents gave correct answers. Item 5 regarding leaving classes unattended should have been answered "never," but 196 or 66 percent of the respondents answered "always" or "frequently." The literature reveals that strict supervision of students while they are using dangerous tools and hazardous equipment is absolutely essential. When lack of supervision results in pupil injury, Alexander (1973) comments that in these instances, the teacher is liable. What constitutes legally adequate supervision is whatever

a jury says it is. In ruling in favor of a boy and his parents, the Washington Supreme Court asserted that the school administration assumed responsibility for supervision even for off-campus activities where injury occurs (Nolte, 1969).

Item 10 regarding the use of equipment and facilities that are in need of repair was answered correctly by only 90 or 30 percent of the respondents while 206 or 69 percent of the respondents replied incorrectly. One person did not respond. Kigin (1973) comments that:

The teacher has the prime responsibility of regularly inspecting facilities and equipment to correct potential hazards before allowing the pupils to use them....If an injury results, he may be declared negligent and, thereby liable for tort (p. 10).

All of the other practice items were answered correctly by at least 85 percent or more of the respondents. These data are based on the responses of the 297 participants and the researcher's assumption that all of the questions were answered honestly.

RECOMMENDATIONS

Based upon the findings, observations, and subsequent conclusions of the study, the researcher submits the following recommendations:

1. This study should be replicated in its present design in order to strengthen the theory or to test the reliability of the present findings with other vocational laboratory instructors.
2. A study should be done using representative samples from secondary schools and four-year institutions.
3. A study should be done to determine the knowledge of vocational laboratory teachers regarding other legal considerations.

4. A course including tort liability regarding negligence should be required for certification for vocational laboratory teachers in Alabama.

5. A study should be done to examine knowledge of vocational laboratory teachers regarding tort liability concerning negligence and the knowledge of non-vocational teachers.

6. More investigative studies should be done regarding knowledge and practices of teachers in high risk areas concerning the body of law involving tort liability and negligence.

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APPENDICES

APPENDIX A

LETTERS REQUESTING PERMISSION TO
CONDUCT THE INVESTIGATION

Apartment 417
University Motel
Highway 460
Blacksburg, VA 24060
October 3, 1977

Mr. Joe Miller, Director
Post-Secondary and Continuing Education
Room 549
State Office Building
Montgomery, Alabama 36130

Dear Mr. Miller:

I am a second year doctoral student on study leave from the Alabama Agricultural and Mechanical University of Huntsville. Here at the Virginia Polytechnic Institute and State University I am in the process of assembling data for my dissertation.

I am respectfully requesting your permission to conduct a survey in the junior colleges and trade schools in Alabama on "Knowledge and Practice of Vocational Education Teachers Regarding Negligence." I would hold the information in confidence regarding name of respondent and the school and would use the data for the purpose of analysis and comparison in my study. I would also eventually wish to use the data to initiate workshops and institutes for periodic review of and training in safety procedures in our schools.

As you can imagine, this study is very important to me in completing my work here. I assure you that your prompt attention to my request will be greatly appreciated.

Sincerely yours,

George E. Jones

Apartment 417
University Motel
Highway 460
Blacksburg, Virginia 24060

Mr. J. C. Lindley
Office of Trade and Industrial Education
State Office Building
Montgomery, Alabama 36130

Dear Mr. Lindley:

I am on study leave from the Alabama A. and M. University, Normal, Alabama, completing work for the terminal degree in Vocational Education at the Virginia Polytechnic Institute and State University. I am attempting to conduct my research on the Knowledge and Practice of Vocational Education Laboratory Teachers Regarding Safety.

I would so much appreciate receiving from you a copy of the current regulations regarding safety in vocational education shop and laboratories for Alabama as well as any other pertinent information that you may have pertaining to this subject. I shall be very happy to receive this information at your earliest convenience and shall reimburse you for the cost of items that you send.

Very sincerely,

George E. Jones

GEJ/

APPENDIX B

LETTER GRANTING PERMISSION
TO CONDUCT THE INVESTIGATION



Wayne Teague
State Superintendent of Education

State of Alabama
Department of Education
State Office Building
Montgomery, Alabama 36130



October 20, 1977

Mr. George E. Jones
Apartment 417
University Motel
Highway 460
Blacksburg, Virginia 24060

Dear Mr. Jones:

Thank you for your recent letter expressing interest in the Alabama system of two-year postsecondary institutions.

Attached please find a listing of all two-year postsecondary institutions in Alabama. You may contact each one of them concerning data for your dissertation.

If this office can be of further assistance to you, please contact me.

Sincerely yours,

William H. Osborn
Assistant Director
Division of Postsecondary and
Continuing Education

WHO:js

Attachment

STATE TECHNICAL COLLEGES AND INSTITUTES

<u>Name and Mailing Address</u>	<u>President/Director</u>	<u>Telephone</u>
1. Alabama Aviation & Technical College Post Office Box 1088 Ozark, Alabama 36360	Troy C. Tullis	774-5113
2. Alabama Technical College 1001 East Broad Street Gadsden, Alabama 35903	Robert W. Howard	547-5451
3. Atmore State Technical Institute Post Office Box 737 Atmore, Alabama 36502	Malcolm A. Jones	368-8118
4. Harry M. Ayers State Technical College Post Office Box 1647 Anniston, Alabama 36202	Pierce C. Cain	831-4540
5. Bessemer State Technical College Post Office Box 308 Bessemer, Alabama 35020	Charles Payne	428-6391
6. John C. Calhoun State Community College H. O. 2216 Decatur, Alabama 35601	Dr. James R. Chasteen	353-3102
7. Carver State Technical Institute Post Office Box 7175 Mobile, Alabama 36607	Earl Roberson	473-8692
8. J. F. Drake State Technical College 3421 Meridian Street, North Huntsville, Alabama 35811	S. C. O'Neal	539-8161
9. Gadsden State Technical Institute Post Office Box 663 Gadsden, Alabama 35901	Eugene N. Prater	547-1685
10. Richmond P. Hobson State Tech. College Post Office Box 728 Thomasville, Alabama 36784	John C. Mosley	636-4429
*11. J. F. Ingram State Technical Institute Post Office Box 158 Deatsville, Alabama 36022	Dr. Murry Gregg	285-5177
12. T. A. Lawson State Community College Technical Division - 2915 Wilson Road Birmingham, Alabama 35221	Leon Kennedy	925-1666
13. Douglas MacArthur State Tech. College Post Office Box 600 Opp, Alabama 36467	E. C. Nevin	493-3573
14. Muscle Shoals Technical Institute Post Office Box 2545 Muscle Shoals, Alabama 35660	Hugo Barton	381-2813

<u>Name and Mailing Address</u>	<u>President/Director</u>	<u>Telephone</u>
15. Northwest Alabama State Tech. College Post Office Box 9 Hamilton, Alabama 35570	Solon Gregg	921-3177
16. N. F. Nunnolley State Technical College Box 389 Childersburg, Alabama 35044	Michael J. Arban, Jr.	378-5576
17. Opelika State Technical College Post Office Box 2268 Opelika, Alabama 36801	Robert Glenn Brown	745-6437
18. John M. Patterson State Tech. College 3920 Troy Highway Montgomery, Alabama 36111	J. L. Taunton	288-1080
19. Ed. E. Reid State Technical College Post Office Box 71 Evergreen, Alabama 36401	Wiley Salter	578-1313
20. Shelton State Technical College Drawer J. East Side Station Tuscaloosa, Alabama 35401	Leo Sumner	556-1165
21. Southwest State Technical College 925 Dauphin Island Parkway Mobile, Alabama 36605	Donald S. Jefferies	479-7476
22. Chauncey Sparks State Technical College Post Office Box 56 Eufaula, Alabama 36027	M. Motier Cope	687-3543
23. Councill Trenholm State Tech. College 1225 Air Base Boulevard Montgomery, Alabama 36108	Marion D. Smiley	264-8426
24. Tuscaloosa State Technical College 3401 32nd Avenue Tuscaloosa, Alabama 35401	I. W. Mitchell	752-9738
25. Walker State Technical College Drawer L Sumiton, Alabama 35148	Harold Wade	648-3271
26. George C. Wallace St. Community College Napier Field Dothan, Alabama 36301	Phillip J. Hamm	983-3521
27. George Corley Wallace St. Comm. College Post Office Box 1049 Selma, Alabama 36701	Charles L. Byrd	875-2634
28. George C. Wallace State Comm. College Post Office Box 250 Hanceville, Alabama 35077	James C. Bailey	352-6403

APPENDIX C

LETTER TO PRESIDENT/DIRECTOR OF EACH
TECHNICAL COLLEGE AND INSTITUTE

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

313 Lane Hall
Virginia Polytechnic Institute
and State University
Blacksburg, VA 24061
February 5, 1978

Mr. Motier Cope
Chauncey Spards State Technical College
Post Office Box 56
Eufaula, Alabama 36027

Dear Mr. Cope:

I am in the midst of my doctoral study at the Virginia Polytechnic Institute and State University. I am attempting to do my research on the knowledge and practice of vocational laboratory instructors in Alabama technical colleges and institutes regarding tort liability and negligence. In order to complete my research, I have designed a survey instrument that I need to administer to the vocational laboratory instructors in these institutions.

The attached letter from William H. Osborn, Assistant Director, Division of Postsecondary and Continuing Education gives me permission to conduct the study. My plan is to personally administer the survey at each institution between the dates: February 1 - March 10, 1978. I would like to submit a copy of the survey to each instructor to whom it applies and request about 20 minutes of his/her time to complete it without leaving the classroom. I will collect the surveys from each school before I leave the premises.

I sincerely hope that you are amenable to this plan. I look forward to meeting you sometime during the period from February 1 - March 10, 1978.

Sincerely,

George E. Jones

GEJ:lw

Enclosure

APPENDIX D
THE INSTRUMENT

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

Dear Fellow Educator:

I am presently conducting a study in an effort to identify the knowledge and practices of vocational laboratory teachers in technical colleges and institutes in the state of Alabama regarding negligence. The findings of this study can provide a rational basis for developing and implementing in-service workshops and institutes for vocational laboratory teachers in the areas of negligence, tort liability and safety regulations. About twenty minutes of your valuable time is needed to complete the attached instrument. All information and data will be held in strictest confidence. Please do not put your name on the form.

The study has the full support of my doctoral advisor, Dr. N. Alan Sheppard, Professor of Vocational and Technical Education, Virginia Polytechnic Institute and State University.

Your cooperation is greatly appreciated.

Sincerely,

George E. Jones

Part A - Personal Information. Please provide the information requested by placing a check mark () in the appropriate blank, or by writing in the appropriate words or numbers.

1. Your gender: Male _____ Female _____
2. Your age: _____ years
3. Location of your school: Rural _____ Urban _____ Suburban _____
4. In what county is your school located? _____
5. Years of industrial experience: _____ years
6. Years of teaching experience: _____ years
7. Employment status: Full time _____ Part time _____
8. Highest grade completed in school: High school _____, College _____, Graduate school _____.

Part B - Knowledge Survey. This portion of the instrument is designed to assess your knowledge concerning tort liability and negligence. Please circle the response you feel is correct for each question. Don not consult reference materials in completing this portion of the instrument.

1. That body of principles in law deriving its authority from usage and custom is referred to as:
 - A. Common law
 - B. Statutory law
 - C. Constitutional law
 - D. Judicial law
2. Failure to act as a reasonably prudent person would under the same or similar circumstances refers to:
 - A. Negligence
 - B. Strict liability
 - C. An intentional tort
 - D. Breach of warrenty
3. The teacher acting in place of the parent is referred to as:
 - A. In loco parentis
 - B. Corpus juris secundum
 - C. Habeus corpus
 - D. Mandamus

4. Liability may result from:

- A. Direct actions only
- B. Indirect actions only
- C. Either direct or indirect actions if the result is foreseeable
- D. Neither direct nor indirect actions

5. A civil wrong committed upon the person of another refers to:

- A. Tort
- B. Felony
- C. Misdemeanor
- D. Violence

6. Failure to take the necessary precautions for the protection of pupils refers to:

- A. A violation of a criminal statute
- B. An act of omission that might be considered to be negligence
- C. Negligence per se
- D. Strict liability

7. A pupil who has deliberately violated a teacher's instructions has committed the legal act of:

- A. Assumption of risk
- B. Negligence per se
- C. Violation of criminal law
- D. Breach of warranty

8. An accident which has occurred without an act of negligence refers to:

- A. Avoidable accident
- B. Careless act
- C. Failure to exercise due care
- D. Pure accident

9. School districts as subdivisions of the state serving a governmental function have been immune from tort liability action under the principle of:

- A. Charitable immunity
- B. Common law immunity (sovereign immunity)
- C. State decisis
- D. State action

10. An accident due to pupil voluntarily placing herself/himself in a dangerous position refers to:

- A. Violation of criminal law

- B. Assumption of risk
- C. Breach of warranty
- D. Negligence per se

11. Teachers have been held legally responsible for supervision which is:

- A. Temporary in nature
- B. Permanent in nature
- C. Specific in nature
- D. General in nature

12. First aid has been defined as care which is:

- A. Prolonged
- B. Temporary
- C. Diagnostic
- D. Medical

13. The responsibility of the teacher in regard to the inspection of equipment and facilities has been defined by the courts as:

- A. Specific in nature
- B. General in nature
- C. Non-existent
- D. Applicable to extra-curricular activities only

14. Waiver and permission slips are held by the courts to be legally:

- A. Binding
- B. Invaluable
- C. Valueless
- D. Protective

15. A teacher who has required a student to perform a task (beyond her/his skill ability or) in hazardous environment has legally committed:

- A. A violation of a criminal statute
- B. An act of commission that might be considered to be negligence
- C. Negligence per se
- D. Strict liability

16. An accident which has been the result of a pupil acting in such a way to contribute to her/his injury refers to:

- A. Violation of criminal statute
- B. Contributory negligence
- C. Sovereign immunity
- D. Breach of warranty

17. A teacher who has permitted a student to perform an operation on a piece of equipment with no prior instruction has acted:

- A. In violation of criminal statute
- B. Prudently
- C. Negligently (imprudently; unreasonably)
- D. Without negligence

18. Waiver and permission slips guarantee legal immunity for teachers:

- A. During class periods only
- B. During extracurricular activities only
- C. Always
- D. Never

19. A teacher who requires inexperienced pupils to use equipment beyond their capability refers to:

- A. A violation of a criminal statute
- B. Strict liability
- C. An act of commission that might be considered to be negligence
- D. Negligence per se

20. The courts have stated that equipment and facilities utilized in the vocational education program should be inspected:

- A. Daily
- B. Every other day
- C. Twice a semester
- D. Three times a year

Part C - Practices Survey. This portion of the instrument is designed to assess the practices which relate to you as a vocational laboratory teacher. Please be certain that you respond to each item. For each item please circle the letter of the category which best relates to your action, using the following definitions for the categories:

A.- Always True: the practice is performed in every situation regardless of circumstances.

F - Frequently True: the practice is performed in most situations, but on occasion it is not followed. The practice is performed more often than not.

S - Seldom True: the practice is performed very rarely. In most instances, the practice is not followed.

N - Never True: under no circumstances is the practice performed.

- | | | | | |
|---|---|---|---|---|
| 1. Do you inspect equipment and facilities prior to use each day? | A | F | S | N |
| 2. Do you enforce safety rules in your classes? | A | F | S | N |
| 3. Do you use an approved syllabus as a guide for instruction? | A | F | S | N |
| 4. Do you utilize proper protective equipment when warranted? | A | F | S | N |
| 5. Do you leave classes unattended? | A | F | S | N |
| 6. Do you keep facilities locked when they are not in use? | A | F | S | N |
| 7. Do you implement acceptable first aid procedures as defined by the American Red Cross when necessary? | A | F | S | N |
| 8. Do you report equipment and facilities which are in need of repair to the proper authorities? | A | F | S | N |
| 9. Do you report all accidents regardless of severity on a form provided by the school administrator? | A | F | S | N |
| 10. Do you use equipment and facilities that are in need of repair? | A | F | S | N |
| 11. Do you adapt class activities to the skill ability and physiological limits of students? | A | F | S | N |
| 12. Do you incorporate safety instructions in the course of study? | A | F | S | N |
| 13. Do you give instruction on hazards and accident prevention specific to the particular shop? | A | F | S | N |
| 14. Do you give instruction and promote activities which will lead to accident prevention in future employment? | A | F | S | N |
| 15. Do you foster student cooperation in accident prevention? | A | F | S | N |
| 16. Do you follow all safety practices personally? | A | F | S | N |
| 17. Do you keep up to date on modern and accepted safe practices in the subject field? | A | F | S | N |

- | | | | | | |
|-----|--|---|---|---|---|
| 18. | Do you revise shop facilities to provide for optimum safety conditions? | A | F | S | N |
| 19. | Do you carry out recommendations of administrator for improving safety instruction of safe working conditions? | A | F | S | N |
| 20. | Do you devise and enforce safe housekeeping procedures? | A | F | S | N |
| 21. | Do you provide for the use of necessary personal protective equipment? | A | F | S | N |
| 22. | Do you develop specific safe practices and regulations? | A | F | S | N |
| 23. | Do you develop an appropriate student personnel system? | A | F | S | N |
| 24. | Do you make recommendations to administrators for improving shop safety conditions? | A | F | S | N |

APPENDIX E

LETTER REQUESTING PERMISSION
TO USE INSTRUMENT

Apartment 417
University Motel
Highway 460
Blacksburg, Virginia
24060

Dr. Phyllis Aubrey Jacobson
Marian College
3200 Cold Spring Road
Indianapolis, Indiana 46222

Dear Dr. Jacobson:

I am presently preparing to begin my doctoral research in the area of vocational technical education at the Virginia Polytechnic Institute and State University. I have read your doctoral study entitled, "Knowledge and Practice of Women Physical Education Teachers in Indiana Regarding Negligence." I am interested in doing a similar study involving the vocational education shop and laboratory teachers in the junior colleges and technical schools in Alabama.

I would very much like your permission to use the portion of your survey instrument involving "knowledge" in its entirety. I would also like permission to adapt the portion of the instrument involving "practice" to the purposes of my study. Please be assured that I shall make acknowledgement appropriately.

Your favorable reply to my request will be greatly appreciated.

Sincerely yours,

George E. Jones

APPENDIX F

LETTER GRANTING PERMISSION
TO USE INSTRUMENT

MARIAN COLLEGE



3200 Cold Spring Road - Indianapolis, Indiana 46222
November 7, 1977

Mr. George E. Jones
Apartment 417
University Motel
Highway 460
Blacksburg, Virginia 24060

Dear Mr. Jones:

I am happy to allow you to use my dissertation instrument for your purposes. In accordance with our discussion over the phone and as you have indicated in your letter, I will expect to receive acknowledgement in your work.

I do have a request. I would like to receive the results of the findings of your study when you have finished if it will not work a hardship for you.

Best wishes on your dissertation. Continued success.

Sincerely,

A handwritten signature in cursive script that reads "Phyllis A. Jacobson".

Dr. Phyllis A. Jacobson

PAJ/pc

APPENDIX G

LETTER FROM THE OFFICE OF
THE ATTORNEY GENERAL
STATE OF ALABAMA

THE ATTORNEY GENERAL

STATE OF ALABAMA · MONTGOMERY, ALABAMA 36130



WILLIAM J. BAXLEY
ATTORNEY GENERAL

November 15, 1977

GEORGE L. BECK
DEPUTY ATTORNEY GENERAL

WALTER S. TURNER
CHIEF ASSISTANT ATTORNEY GENERAL

TOM CORK
CONFIDENTIAL ASSISTANT

JACK D. SHOWS
CHIEF INVESTIGATOR

Mr. George E. Jones
University Motel Apts.
#417
Blacksburg, Virginia 24060

Dear Mr. Jones:

Please forgive the lateness of this reply.

I have asked my fellow staff members whether they are aware of cases dealing with the liability of teachers for injuries sustained by students in public schools. To date, we are unable to recall any. In light of the time limit you are confronted with, I must inform you that my efforts to find the information you need have been unsuccessful.

There are two sources which may be of some assistance to you:

1. Alabama Education Association
Legal Division
422 Dexter Avenue
Montgomery, Alabama 36104
Phone: (205) 832-9790
2. Local Boards of Education

Presently, AEA is searching its file for this information. Perhaps, they will be able to come up with something.

Sorry that we could not be of more assistance to you.

Very truly yours,

WILLIAM J. BAXLEY
ATTORNEY GENERAL

By

Ronald B. Hatcher
RONALD B. HATCHER
ASSISTANT ATTORNEY GENERAL

RBH:dpr

APPENDIX H

LETTER FROM STATE SUPERVISOR
OF TRADE AND INDUSTRIAL EDUCATION



State of Alabama
Department of Education

Division of
VOCATIONAL EDUCATION
State Office Building
Montgomery, Alabama 36130



Wayne Teague
State Superintendent of Education

October 25, 1977

T. L. Faulkner
State Director

Mr. George E. Jones
Apartment 417
University Motel
Highway 460
Blacksburg, Virginia 24060

Dear Mr. Jones:

In regard to your recent letter, we are enclosing pages out of our HANDBOOK FOR TRADE INSTRUCTORS concerning safety. Also we are enclosing a check list available to our district supervisors for district use.

We hope you much success in your studies.

Sincerely yours,

A handwritten signature in cursive script, which appears to read "J. C. Lindley".

J. C. Lindley
State Supervisor

Trade & Industrial Education

JCL:jl

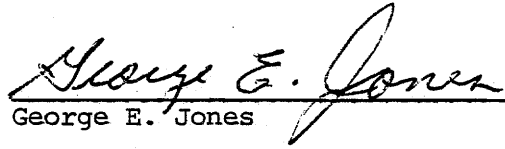
Enclosures

VITA

George Edward Jones, Jr. was born August 3, 1933, in Greenville, Alabama to the parentage of the late Mr. and Mrs. George Edward Jones. He graduated from Central High School, Mobile, Alabama, June, 1953. His Bachelor of Science degree in Industrial Arts Education was granted in May, 1959 by the Alabama Agricultural and Mechanical University, Normal, Alabama. He attended New York University during the summer of 1961. In May, 1972, he received the Master of Science degree in Industrial Technology from the University of Wisconsin, Platteville. In June, 1976, he entered the Virginia Polytechnic Institute and State University in the area of Vocational and Technical Education. He satisfied the requirements for the Doctor of Education degree in June, 1978.

He served in the United States Navy from December, 1955 to September, 1957, where he held the position of ship service electrician. From September, 1959 to June, 1972, he was instructor of industrial arts at the Carver High School, Montgomery, Alabama. In June, 1972, he began work as a draftsman at the Brown Engineering Company, Huntsville, Alabama. From August, 1972 to December, 1975, he was employed by the Boeing Company, Huntsville, Alabama. When the J. F. Drake Technical School was established in Huntsville, he was invited to develop a drafting program. He remained in that position until August, 1975 when he returned to the Boeing Company where he remained until September, 1969. Since September, 1969, he has been employed as Assistant Professor in the School of Technology, Alabama Agricultural and Mechanical University, Normal (Huntsville), Alabama.

He is married to Dr. Bessie Washington Jones. They have a son, Glenn Eliot, and two daughters, Jocelyn Elise and Gina Elaine.


George E. Jones

KNOWLEDGE AND PRACTICES OF VOCATIONAL LABORATORY TEACHERS IN
TECHNICAL COLLEGES AND INSTITUTES REGARDING NEGLIGENCE

by

George E. Jones

(ABSTRACT)

The purpose of this study was to determine the knowledge level of vocational laboratory teachers in technical colleges and institutes in Alabama regarding tort liability concerning negligence. Furthermore, the study sought to determine the extent to which these same teachers observed and enforced safety practices in the conduct of their vocational laboratory classes.

The investigator examined whether relationships existed between knowledge and practice and the factors of location--urban, suburban, or rural, level of education, teaching experience, age, gender, and industrial experience.

Two hundred and ninety-seven vocational laboratory teachers in the technical colleges and institutes in Alabama participated in the study. The researcher did not make a random selection of vocational laboratory teachers, but included all vocational laboratory teachers as identified by the president/director of each institution upon the researcher's visit to the institution.

A three-part questionnaire was used in collecting the data for this study. Part A contained eight items designed to collect personal data

relative to the participants. Part B was composed of twenty items designed to assess the knowledge of the participants concerning tort liability and negligence. Part C was composed of twenty-four items designed to assess the practice which related to the participants as vocational laboratory teachers.

The Statistical Package for the Social Sciences (SPSS), second edition (1975), was used inasmuch as the frequencies, percentages, and correlations could be computed by this one program. The Pearson product-moment coefficient of correlation was used to determine the relationship between knowledge and practice. Chi square (χ^2) was used to determine the relationship between variables for both knowledge and practice items.

No significant relationship was found between knowledge and practice. There was no significant relationship between the variables of location, level of training, teaching experience, gender, age and industrial experience and the knowledge level of vocational laboratory teachers regarding the body of law concerning tort liability regarding negligence. There was no significant relationship between the variables of location, teaching experience, age and industrial experience and the safety practices and procedures used by the vocational laboratory teachers. The null hypotheses for these variables were retained.

There was a significant relationship between the variables of gender and level of training and the safety practices and procedures used by the vocational laboratory teachers. The null hypotheses for these two variables were, therefore, rejected