AN ANALYSIS OF COURT DECISIONS PERTAINING TO TORT LIABILITY FOR STUDENT INJURIES SUSTAINED IN SCIENCE ACTIVITIES IN PUBLIC SCHOOL SYSTEMS THROUGHOUT THE UNITED STATES

by

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NATURE AND SCOPE OF THE STUDY

INTRODUCTION

The potential for accidental injury to students exists in every school activity. In some subject areas the risk is particularly high. The science laboratory, for example, has long been held to be an area of possible injury to students and of great liability for teachers. It was this premise in part, which lead to the present study.

The sheer numbers of pupils attending public schools, the expansion during recent years of school activities requiring more active student participation, and changing community attitudes have been accompanied by increasing liability implications for students and faculty. Teachers are especially vulnerable to litigation and may be held liable for their acts under a variety of circumstances. The responsibility for safeguarding pupils from personal harm and injury rests heavily on teachers and other school personnel.

Courts have indicated a growing willingness to involve themselves in school problems. This represents a change of judicial philosophy from the previous "hands-off" attitude which prevailed prior to the mid 1950's. "Schools are now aware of the potential answerability to the court systems and

must adjust institutional conduct accordingly."[1] "Recent history indicates that the courts will have more influence on the conduct of the teachers and the administrator than the educators ever dreamed of."[2]

PURPOSE OF THE STUDY

The purpose of this study was to investigate, analyze and classify appellate court decisions as they relate to the question of the legal liability of science teachers and school districts for injuries or deaths resulting from student involvement in laboratory, classroom or classroom-related science activities. The primary intent was to tie together common elements of related cases and to point out any unifying legal principles underlying the court decisions. This was done in order to clarify the legal responsibilities that might impinge on science teachers' professional conduct and behavior.

NEED FOR THE STUDY

Many studies at the doctoral level have been carried out in the area of general tort liability of school districts.

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[1]Ripps, Stephen R. "The Tort Liability of the Classroom Teacher." Akron Law Review, Volume 9, No. 1 (Summer, 1975), p. 31.

[2]Ibid., p. 33.

Boy,[3] for example, studied trends in tort liability of public schools in Pennsylvania, and Lemley's dissertation dealt with general tort liability.[4] Martin was concerned with trends in tort liability of school districts[5] and Satterfield studied the legal aspects.[6]

Research on school tort liability has been primarily concerned with school district and teacher liability in the areas of inter-scholastic athletics, physical education, and vocational and manual arts. No known study has been devoted solely to the liability of science teachers, even though certain aspects of science instruction have long been recognized as carrying a high risk of accident and related teacher liability.

STATEMENT OF THE PROBLEM

The problem investigated by this study was stated as three major questions:

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[3]Boy, Edwin William. "Recent Trends in Tort Liability of Public Schools and Implications for the Public Schools of Pennsylvania." Doctoral Dissertation, The Pennsylvania State University, 1966.

[4]Lemely, Charles Ray. "Tort Liability of Public Schools." Doctoral Dissertation, East Texas State Univ. 1964.

[5]Martin, David V. "Trends in Tort Liability of School Districts as Revealed by Court Decisions." Doctoral Dissertation, Duke University, 1962.

[6]Satterfield, Ted J. "Legal Aspects of Tort Liability in School Districts as Indicated by Recent Court Decisions." Doctoral Dissertation, Temple University, 1949.

1. What is the legal liability of science teachers and school districts for pupil injuries sustained in laboratory, classroom or classroom-related science activities as revealed by appellate court decisions?

2. What reasoning and principles of law have the courts held in finding science teachers and school districts to be negligent or free from negligence for physical injury to pupils?

3. What trends and patterns of court decisions can be recognized, and what implications do these have for public schools and science teachers?

SIGNIFICANCE OF THE STUDY

This study provides science teachers and school officials with a description of tort liability and basic principles of law as it pertains to them. The study can be used by school districts to develop guidelines for teacher inservice programs in safety education and accident prevention and it can provide material for courses in school law relating to the area of teacher liability.

RESEARCH METHODS AND SOURCES OF DATA

The research for the study essentially consisted of a careful and extensive search of all relevant cases which have been decided by appellate court jurisdiction. The sources of data used were those conventionally used in legal analysis

research. Roalfe,[7] a recognized authority on "finding the law" and legal writing, provided a comprehensive resource to the use of the legal materials.

The American Digest System,[8] a series of digests of cases from the year 1658 to present, was the basis for the bibliography of tort liability cases.[9]

After the cases were identified in the American Digest System, the complete opinions were read as they appeared in the National Reporter System.[10] The National Reporter System includes all cases from all courts in the United States and gives the actual opinion of the court in each. Using the National Reporter System, it is possible to read all the cases of record or appellate cases in all the states on a particular point.[11] The American Digest System and the

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[7]Roalfe, William R., editor. How to Find the Law, sixth edition. St. Paul, Minnesota: West Publishing Co., 1965.

[8]The American Digest System is the master index to all of the case law in the United States and is the standard plan of law classification in this country.

[9]Appendix C shows the form which was used to compile the bibliography of cases.

[10]A brief was prepared for each opinion prior to in-depth analysis. The form used for preparing each brief can be found in Appendix D.

[11]For citation purposes, the System is divided into nine geographical sections: Atlantic, Northeastern, Southeastern, Southern, Southwestern, Pacific, Northwestern, New York Supplement, and California Reporter.

National Reporter System contain virtually all appellate decisions handed down in the United States.

The American Law Reports (A.L.R.), a series of select cases of special interest from all the states, was useful in obtaining general understandings of points and in supplying additional leads to cases. The annotations which follow most of the cases reported in the American Law Reports review the substance of what has been decided in other cases on the same point. An A.L.R. annotation provides an excellent means whereby one can find all the law on the question annotated. It cites and summarizes the facts and holdings of every reported case in point.

The legal encyclopedias Corpus Juris Secundum and American Jurisprudence, each designed to cover the entire field of law, provided text summaries of legal principles and citations to cases in point.

Shepard's Citations system, designed to provide a "history" of each reported case, was reviewed to determine whether the case on appeal was affirmed, reversed, modified, or dismissed. Shepard's Citations was also useful in determining whether there had been later cases which criticized, followed, overruled, modified, reversed, or distinguished the holding of the case in question.

General background material, leads to cases, and related research, were provided by articles listed in the

Index to Legal Periodicals, the Index to Periodical Articles Related to Law, and from information supplied by the National Organization on Legal Problems of Education (NOLPE). An ERIC search provided additional journal and periodical literature[12] and a DATRIX search furnished some related dissertation titles.[13]

DEFINITIONS OF TERMS

Persons in the field of law utilize a vocabulary which is unfamiliar to most laymen. Even though an attempt was made to keep the legal jargon of this study to a minimum, some terms necessarily must be included. In view of this, a glossary of legal and technical terms which the writer felt needed clarifying can be found after the Appendix section of this study.

DELIMITATIONS OF THE STUDY

Only court decisions of appellate jurisdiction of the United States between 1658 and July 1, 1976 were studied. The torts reported were those which appeared in the key-numbered digests pertaining to public schools under Schools

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[12]Educational Resources Information Center, Analysis Center for Science, Mathematics and Environmental Education, The Ohio State University, Columbus, Ohio.

[13]Xerox Corporation University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan.

and School Districts.[14] Key-number 208 was searched in the Century Edition of the American Digest System (1658 to 1896). Key-number 89, which first appeared in the First Decennial Digest (1896 to 1906) was then studied. With the evolvement of a more specific method of classification over the years, it was possible to search sub-topics under key-number 89 to locate all the cases which fell in the area of this study. Some cases were also found under key numbers 120, Pleading; 121, Evidence; 122, Trial; and 147, Duties and Liabilities of Teachers.

Because the vast bulk of tort litigation concerns claims for injuries negligently inflicted, only this aspect of tort liability was discussed. This limitation necessarily excluded litigation involving intentional torts and strict liability torts.[15]

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[14]The Key-Number system, developed by the West Publishing Co., is the standard plan of law classification. The system is constructed around seven categories which, in turn, are subdivided into approximately 421 topics. Each topic is then further divided into specific points of law that are numbered and identified with a symbol of a key. Key-number 208, for example, represents torts in the Century Edition, whereas, key-number 89 represents torts in the First Decennial Edition.

[15]Intentional torts involve the intentional interference with the person and intentional interference with property rights. Intentional torts include assault, battery, false imprisonment and infliction of mental anguish. Libel and slander, which are based on defamation, are also categorized as intentional torts. Strict liability applies when a person engages in conduct which does not depart so

ORGANIZATION OF THE REMAINDER OF THE STUDY

Chapter 2 presents an introduction to the field of tort, discusses the theory of negligence, and points out some of the defenses available to school districts and school district personnel. Chapter 3 contains a discussion of science instruction and related student accidents. Chapter 4 provides an in-depth analysis of the pertinent court cases and points out the legal principles and issues involved. Chapter 5 contains the findings, summary, recommendations, and suggestions for further study.

SUMMARY

Chapter 1 outlined the nature and scope of the study. The purpose of the study as presented in the chapter was to determine the legal liability of science teachers and school districts for pupil injuries or deaths resulting from student involvement in science or science-related instructional activities. The court-reasoned bases for liability or non-liability and identified trends

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[15]far from the social standards as to fall within the traditional boundaries of negligence, but is still socially unreasonable to the extent that the defendant is not allowed to continue it without making good any damage or actual harm which it does. For example, statutes in many states impose strict liability on the keeper of dogs for any damages done by them.

and patterns revealed by the court decisions were also mentioned as questions to be investigated by the study. The need for the study was justified by a lack of research on science teacher and school district liability for pupil injuries or deaths at a time when such information should be available because of increasing school-related litigation and liability implications. The sources of research for the study were provided and the organization of the remainder of the study was presented.

Chapter 2

FIELD OF TORT

The purpose of this chapter is to provide the legal setting for the study. To do this effectively, the chapter is divided into three sections. The first section deals briefly with the general principle of tort liability. The theory of negligence is discussed in section two and section three points out some of the defenses available to school districts and school district personnel.

TORT LIABILITY

The right to be free from harm caused either intentionally by others or by their carelessness is fundamental to an individual's well-being. Universal tort law provides that every person should be compensated if injured negligently or intentionally by another person. "This general rule of law applies equally to school personnel in their relationships with pupils."[1]

The field of tort is that phase of the law which protects the right of a person against injury to his body,

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[1]Alexander, Samuel Kern, Jr. "An Analysis of the Law Affecting Public School Administrative and Teacher Personnel in Kentucky." Doctoral Dissertation, Indiana University, 1965, p. 86.

reputation, character, conduct, manner and habits. The word tort is of French origin derived from the Latin, "torquere," which means to twist or bend. "The metaphor is apparent: a tort is conduct which is twisted, . . . , not straight."[2] Generally speaking, a tort is a civil wrong, other than breach of contract, for which the court will provide a remedy in the form of an action for damages.[3] An act of tort is, therefore, a wrongful act resulting from the omission or commission of an act by one, without right, which causes direct or indirect injury to another person, his property or reputation.

Fundamentally, tort liability is divided into three parts because every case in which such liability has been imposed has rested upon one of the three. According to Prosser these are:[4]

1. Intent of the defendant to interfere with the plaintiff's interests.

2. Negligence

3. Strict liability, "without fault," where the defendant is held liable in the absence of any intent which the law finds wrongful, or any negligence, very often for reasons of policy.

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[2]Prosser, William L. Law of Torts, 3rd edition. St. Paul, Minnesota: West Publishing Company, 1964, p. 2.

[3]Ibid.

[4]Ibid., p. 27.

Since this study is concerned only with real or imputed negligence of school districts, school officers, agents and employees, only this aspect of tort liability is discussed.

NEGLIGENCE

Simply defined, negligence is any conduct that does not measure up to the standards established by law for the protection of others. Negligence implies the unintentional omission or commission of an act which results in injury, damage, or death.

Four essential elements are necessary in order to base a court claim upon the charge of negligence. Stated by Prosser the four elements are:[5]

1. A duty or obligation, recognized by law, requiring the actor to conform to a certain standard of conduct, for the protection of others against unreasonable risks.

2. A failure on the actor's part to conform to the standard required.

3. A reasonably close causal connection between the conduct and the resulting injury.

4. Actual loss or damage resulting to the interests of another.

Tersely, these elements become: duty, standard of care, proximate cause, and injury.

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[5] Ibid., p. 146.

School districts and their employees have a duty to protect their students. Since the duty is present, the "actor" is obligated to act in such a way as not to cause any unreasonable risks to the other party. At this point, the legal fiction of the reasonable and prudent man provides one of the two tests for negligence.

The reasonable man represents a community ideal of reasonable behavior. The characteristics of this imaginary person include the physical attributes of the actor himself, normal intelligence and mental capacity, normal perception and memory with a minimum of experience and information, and skills and knowledge such as the actor has or holds himself out as having when he undertakes an action.[6] For teachers, the generally accepted standard of behavior would be that of a "reasonably prudent teacher."

The test of foreseeability is the second test for negligence. The failure to act in accordance with foreseen danger is considered negligent behavior.

The "proximate" or "legal" cause is the sequential connection between the actor's negligent conduct and the resultant injury to another person. An unbroken chain of events must exist between the act and the injury before legal cause can be established.

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[6] Ibid., pp. 153-168.

The National Education Association has described these general principles of negligent behavior:[7]

1. Appropriate care is not employed by the actor.

2. Although an act is done with due care and precaution, the circumstances under which it is done create risks.

3. The actor is engaging in acts which involve an unreasonable risk of direct and immediate harm to others.

4. The actor sets in motion a force which can be unreasonably dangerous to others when continually operating.

5. The actor creates a situation which is unreasonably dangerous to others because of the likelihood of the action of third persons or of inanimate forces.

6. Dangerous devices or instrumentalities are intrusted by the actor to persons who are incompetent to use or care for such instruments properly.

7. The actor neglects a duty of control over third persons who, by reason of some abnormality or incapacity, he knows to be likely to inflict intentional harm upon others.

8. The actor fails to employ due care in giving adequate warning.

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[7]National Education Association. "Who is Liable for Injuries?" Washington, D.C., NEA, 1950, p. 7.

9. The actor fails to exercise the proper care in looking out for persons whom he has reason to believe may be in a danger zone.

10. The actor fails to employ appropriate skills in performing acts undertaken.

11. The actor fails to make adequate preparation to avoid harm to others before entering upon certain conduct where such preparation is reasonably necessary.

12. The actor fails to inspect and repair instrumentalities or mechanical devices used by others.

13. The actor's conduct prevents a third person from assisting other persons imperiled through no fault of his own.

14. The actor's written or spoken word creates negligent misrepresentations.

DEFENSES

Assuming that the essential elements of negligence are present, what are some of the defenses available to defendant school districts, its officers, agents or employees? The following have been advocated as reasons for denial of recovery:[8]

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[8]Hartman, Robert Duane. "The Non-Immunity of School Districts to Tort Liability." Doctoral Dissertation, University of Illinois at Champaign-Urbana, 1963.

1. Contributory negligence
2. Assumption of risk
3. Intervening cause
4. Comparative negligence
5. Last clear chance
6. Sovereign immunity

Contributory Negligence

A plaintiff must exercise for his own safety that degree of care a reasonably prudent person would exercise under like circumstances. If the plaintiff fails to exercise the proper degree of care, and that failure contributes in some degree to his injury, then the plaintiff is barred from recovery.[9] Minors are held to a different degree of care for self-protection than are adults. The standard of care required of a minor child is that which other children of the same age, knowledge, experience, and mental capacity would exercise.[10] Contributory negligence implies misconduct, either in the doing of an imprudent act by the injured party or in his failing to take proper precautions for his personal safety.

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[9]Soich, John E. "Analysis of Tort Liability of School Districts and/or Its Officers, Agents, and Employees in Conducting Programs of Physical Education, Recreation and Athletics." Doctoral Dissertation, Univ. of Pittsburg, 1964, p. 217.

[10]National Education Association. "Who is Liable for Pupil Injuries?" The Legal Status of the Public School Pupil. Washington, D.C. XXVI, No. 1 (Feb., 1948), p. 14.

Assumption of Risk

This doctrine is based upon the maxim volenti non fit injuria, literally, "he who consents cannot receive injury."[11] In its simplest and primary sense, the doctrine of assumed risk means that when a person enters knowingly and voluntarily into a relationship or situation involving obvious danger, he has in effect relieved the defendant of any responsibility for his safety. Generally, however, the doctrine is not permitted to stand in court if it can be shown that a child's age or lack of information or experience prevented him from fully comprehending the risk involved in a known situation.

Intervening Cause

This occurs when the original negligent act of a defendant is followed by an independent act of a third person which results in direct injury to the plaintiff. The negligence of such defendant may nevertheless constitute the proximate cause thereof if, in the ordinary and natural course of events, the defendant should have known that the intervening act was likely to happen. On the other hand, if the intervening act causing the injury was one in which it was not incumbent upon the defendant to have anticipated as

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[11]Black, Henry Campbell. Black's Law Dictionary. 4th edition. St. Paul, Minnesota: West Publishing Co., 1968, p. 1747.

reasonably likely to happen, then the defendant owes no duty to the plaintiff because the chain of causation is broken.[12]

Comparative Negligence

When this doctrine is employed, the negligence of the parties is compared in the degree of "slight," "ordinary" or "gross."[13] Notwithstanding contributory negligence on the part of the plaintiff, recovery is permitted when the negligence of the plaintiff is slight while the negligence of the defendant is gross. Recovery is refused when the plaintiff has been guilty of a want of care which contributed to his injury. Recovery is also refused when the negligence of the defendant is only ordinary or slight when compared, under the circumstances of the case, with the contributory negligence of the plaintiff.

Last Clear Chance Doctrine

This doctrine, the most commonly accepted modification of the strict rule of contributory negligence, is based upon the premise that the person who has the last clear

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[12]Hale v. Pacific Telephone and Telegraph Co., 42 Cal. App. 55, 58, 183 P. 281 (1919).

[13]The discussion here is based upon entries found in Black's Law Dictionary, p. 353.

chance to avoid damage or injury to another is liable.[14] This doctrine is generally inapplicable unless the injured party was guilty of negligence and unless the injured person was in an apparently helpless condition.

In upholding this rule, the courts have determined that there must be proof that the defendant discovered the situation, that he had time to take action which would have saved the plaintiff, and that he failed to do something which a reasonable person would have done under similar circumstances. In the absence of any one of these elements, the plaintiff is generally denied recovery.

Sovereign Immunity

Since 1860, the common law principle of governmental immunity for school districts in cases involving tort liability has been applied by American courts.[15] Regardless

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[14]This doctrine had its origin in 1842 in the English case of Davies v. Mann, 152 Eng. Rep. 588, in which the plaintiff left his jackass fettered in the highway, and the defendant drove into it. It was held that the plaintiff might recover, despite any negligence of his own, if the defendant might, by proper care, have avoided injuring the animal.

[15]Bigelow v. Inhabitants of Randolph, 80 Mass. 541 (1860). In this landmark case the town of Randolph, Massachusetts was held not liable for injuries to a pupil who fell into a dangerous excavation in the yard of a school building.

of the facts and circumstances of the particular case, this seemingly unjust principle has often been upheld.[16]

"Sovereign immunity, in its pure form, completely absolves a governmental body from liability and prevents an injured party from recovering damages for negligence."[17] Historically, the school district has been immune from liability because of sovereign immunity, and although the doctrine does not apply to the tortious acts of teachers and administrators, it has until recently tended to discourage lawsuits.[18]

The doctrine of sovereign immunity originated in England, where the courts held the belief that the "king can do no wrong." Eventually this belief was applied to governmental agencies. The case of Russell v. Men of Devon represents precedent and the beginning of the important common law where sovereign immunity was extended to an un-

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[16]Anderson v. Bd. of Education of City of Fargo, 190 N.W. 807 (N.D. 1922). Child killed by swing; Antin v. Union High School Dist. No. 2 of Clatsop County, 280 P. 664 (Ore. 1929). Student killed when pneumatic water tank exploded on school grounds; Nissen v. Redelack, 74 N.W. 2d 300 (Minn. 1955). Student drowned in unsupervised pool; Streickler v. City of New York, 225 N.Y.S. 2d 602 (1962). Student fell on ice-covered playground; Spanel v. Mounds View School Dist. No. 621, 118 N.W. 2d 795 (Minn. 1962). Student injured on defective and faulty school equipment.

[17]Enos, Donald F. Who's Responsible or the Law and the Irresponsible Somebody. U.S., Ed. Resources Information Center, ERIC Document, ED 109 741, (March, 1975), p. 1.

[18]Ripps, op. cit., p. 19.

incorporated governmental body.[19] Russell sued all the male inhabitants of the county of Devon for damages occurring to his wagon by reason of a bridge being out of repair. The court held that the action could not be awarded damages because:

1. To permit it would lead to "an infinity of actions,"

2. There was no precedent for attempting such a suit,

3. Only the legislature should impose liability of this kind,

4. Even if defendants are to be considered a corporation or quasi-corporation, there is no fund out of which to satisfy the claim.

5. Neither law nor reason supports the action,

6. There is a strong presumption that what has never been done cannot be done, and

7. Although there is a legal principle which permits a remedy for every injury resulting from the neglect of another, a more applicable principle is "that it is better that an individual should sustain an injury than that the public should suffer an inconvenience."[20]

In the United States the concept was initially applied by a Massachusetts court in 1812 in the case of Mower v. The Inhabitants of Leicester.[21] Mower's horse stepped in a hole and was killed. The plaintiff argued that

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[19]Russell v. Men of Devon, 100 Eng. Rep. 359 (K.B. 1788).

[20]Knaak, William C. School District Tort Liability in the 70's. St. Paul, Minn. Marric Publishing Co., 1969, p. 7.

[21]Mower v. The Inhabitants of Leicester, 9 Mass. Rep. 247 (1812).

"Men of Devon" should not apply since the town of Leicester was incorporated and had a treasury out of which to satisfy the judgment. Nevertheless, the Massachusetts court granted immunity, holding that the town had no notice of the defect and that quasi-corporations are not liable for such neglect under common law.

The principles set forth in these two historic cases quickly spread to all governmental or quasi-governmental agencies in the various states.[22] Therefore, in the absence of statutory authority, public corporations simply could not be sued for damages.

Governmental or quasi-governmental agencies, including schools, operate in a dual capacity, performing both governmental and proprietary functions. When performing governmental functions, schools are supposedly performing duties which are of general benefit to the public and are not in the nature of corporate or business benefit or interest. Some courts have consistently held that instruction in schools is a governmental function. This reasoning has tended to protect schools from suits for student injuries resulting from their involvement in instructional activities.

Schools perform proprietary functions when they discharge services which could be done just as easily by private corporations. For example, a school board that conducts

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[22]Ripps, op. cit., p. 20.

intramural and interscholastic sports, accompanied by concession stands similar to the commercial variety, may be performing a "proprietary function." Some courts have held that when such governmental agencies as schools were acting in proprietary activities they would be liable for injuries to the same extent that a private corporation would. Historically, according to Davis,[23] school districts have been generally immune from tort liability while performing governmental functions, but subject to tort liability when performing proprietary functions.[24]

> In recent years the concept of immunity from tort liability in cases of proven negligence has come in for a good deal of criticism. In some cases, notably Washington, California, and New York, statutes have been enacted which abrogate the common law immunity of school districts, while in others the supreme courts have taken action to end the practice.[25]

In 1959, for example, the Supreme Court of Illinois abolished the rule of governmental immunity in the school bus transportation case of Molitor v. Kaneland.[26] This landmark case set an example which other courts had been awaiting.

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[23]Davis, James Thomas. "Judicial Distinctions Between Governmental and Proprietary Functions of School Boards." Doctoral Dissertation, Duke University, 1968.

[24]The case of Bailey v. Mayor of New York, 3 Hill 531, 38 Am. Dec. 669 (1842), introduced the concept of liability for proprietary actions of governmental entities.

[25]Nolte, M. Chester. Guide to School Law. West Nyack, New York: Parker Publishing Co., 1969, p. 103.

[26]Molitor v. Kaneland Community Unit District No. 302, 18 Ill. 2d 11, 163 N.E. 2d 89.

Prior to this case, the courts had not abolished the long-standing doctrine although they had expressed displeasure with it. The courts' contention was that it was the duty of state legislatures to rescind the immunity rule. Previous to 1959, the immunity rule had been abolished only in the states of Washington (1907), New York (1907, 1937) and California (1928).

> Whether by legislative action or by judges' decision. there is a definitely identifiable trend toward an abrogation of the concept of governmental immunity from tort liability of school districts in this country.[27]

Even though there is a current trend toward abrogating the doctrine of sovereign immunity, its application still varies from state to state for both governmental and proprietary functions. The current status of the sovereign immunity rule in the United States can be found in Appendix G.

The decline in the reliance on the doctrine of sovereign immunity has resulted in a greater volume of tort cases against school teachers and school districts.

> It can be noted that states such as New York, which have waived their immunity, do evidence more litigation, especially in the negligence field, than states which maintain immunity.
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> Teachers must recognize that there are legal duties that they owe to their students and the breach of a duty can bring on a lawsuit. With a more sophisticated society that is consumer oriented, the likelihood that litigation will be entered into is greater now than ever before.[28]

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[27]Nolte, op. cit., p. 103.

[28]Ibid., pp. 32-33.

Alexander attributes the spread of tort liability to the changing attitudes of students, teachers, and the community as well as the abrogation of governmental immunity by various states.[29] He maintains that students' and parents' increasing knowledge of their legal rights has brought about a greater volume of legal actions against teachers and school districts.

SUMMARY

The essential purpose of the law of tort is to provide compensation for a person who is negligently or intentionally injured by another person. The theory of negligence was discussed because the vast bulk of litigation in the field of tort concerns claims for injuries negligently inflicted. Some of the defenses available to school districts and school district personnel include: contributory negligence, assumption of risk, intervening cause, comparative negligence, "last clear chance," and sovereign immunity.

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[29]Alexander, Kern. "Trends and Trials: Tort Liability Spreads to Students, Faculty." Nation's Schools, Volume 87, (March, 1971), pp. 55-58.

Chapter 3

SCIENCE INSTRUCTION AND STUDENT ACCIDENTS

The primary purpose of Chapter 3 is to point out the nature and scope of student accidents and injuries occuring in science or science-related school activities. Data provided by the National Safety Council give the estimated rates of student accidents in shops and laboratories in the United States. Information on the nature of science injuries is provided by data supplied by the Kansas State Department of Health and Environment.

The science laboratory in the public school has been thought to be one of the areas of greatest danger as regards the liability of school personnel. Because of the projects and experiments performed and the equipment used, these classes have been the source of many pupil injuries. Teachers in charge of laboratory activities run a greater risk of becoming involved in tort litigation than teachers in "tamer" aspects of the school curriculum.

> The National Safety Council estimates that during any typical year, over 800,000 accidental injuries occur to students while under the supervision of the elementary and secondary schools of the United States. Of these, over 5,000 accidents happen in science laboratories, and

a few in science classrooms and during science field trips.[1]

Although the above estimates by the National Safety Council were given prior to 1970, they apparently have remained near that level. For example, during the 1974-1975 school year, the Council estimated that there were some 704,700 school-jurisdiction accidents. Of these, 4,950 were science-related. These figures were extrapolated from data in Table 1 which show the accident rates per 100,000 student days in shops and laboratories for the 1974-1975 school year. Table 1 is based on data reported voluntarily by school systems throughout the United States using the National Safety Council's summary forms. Even though these figures are not national in scope, they represent the school accident experience of more than two million pupils.

The data in Table 1 also reveal that most of the science injuries occur in grades seven through twelve. This is not too suprising when one realizes that current science instruction requires more and more active participation by students, especially at the upper elementary and secondary school level, although laboratory situations involving students appear as early as the lower elementary grades. This

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[1]Brown, Billye W. and Walter R. Brown, Science Teaching and the Law. Washington, D.C.: National Science Teachers Association, 1969, p. 13.

Table 1

Male and Female Student Accident Rates by School Grade

Location and Type	TOTAL	Kgn.	Gr. 1-3	Gr. 4-6	Gr. 7-9	Gr. 10-12	Days Lost/Injury
Enrollment Reported (000)	2,262**	149	484	526	581	481	
Total School Jurisdiction	15.66	9.74	10.74	15.19	21.62	17.02	2.01
SHOPS AND LABS	.90	0	.02	.08	1.70	1.98	1.08
Homemaking	.07	0	0	.01	.19	.09	1.44
SCIENCE	.11	0	0	.02	.29	.15	.93
Driving (practice)	*	0	0	0	.01	.01	1.20
Vocational, I.A.	.54	0	0	.02	.98	1.22	1.04
Agricultural	.01	0	0	0	.01	.01	.58
Other Labs	.05	0	*	.01	.08	.11	1.34
Other Shops	.12	0	.02	.02	.14	.39	2.08

The table above represents a composite of 32,000[1] school-jurisdiction accidents reported to the National Safety Council for the 1974-1975 school year. The rates are accidents per 100,000 student days. A rate of .10 in the TOTAL column only is equivalent to about 4,500 accidents among the nation's male and female enrollment.

[1]Only those accidents occurring in Shops and Labs are included here. Accidents are those causing the loss of one-half day or more of (1) school time or (2) activity during non-school time, and/or any property damage as a result of a school-jurisdictional accident.

*Less than 0.005

**Some totals include data not shown separately. (modified after, National Safety Council, Accident Facts, 1976 edition).

increase in student involvement necessarily raises safety questions not common to the more conventional courses of study.

Table 1 shows further that the rate of injury for pupils in science accidents is greatest in grades seven through nine. Higher enrollments in these grades, inexperience and student immaturity may be some of the factors influencing this rate.

Comprehensive school accident reports on a national level are difficult to obtain. Details on nature of injury and the part of body injured, for example, can only be obtained from individual accident reports.[2] Most school reports are kept by individual school systems, presumably for accident prevention purposes. By contrast, the Kansas State Department of Health and Environment collects school accident reports on a statewide basis, and Table 2 gives data by nature of science injury for the two year period 1974-1975 and 1975-1976 in Kansas.

Although data in Table 2 show that the number of science class injuries is only a small fraction of the total, the information on the nature of injury and frequency of occurrence should be valuable to the safety-conscious science teacher. The Table 2 data also reveal that most of

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[2]Examples of Student Accident Reporting Forms can be found in Appendixes E and F.

Table 2

School Jurisdiction and Science Class Accidents By Nature of Injury
Kansas School Years 1975-76, 1974-75

Nature of Injury	1975 - 1976 School Year		1974 - 1975 School Year	
	School-Jurisdiction Accidents	Science Class Accidents	School-Jurisdiction Accidents	Science Class Accidents
Total	8,861	55	10,917	125
* 1. Abrasion/bruise	584	--	733	2
2. Amputation	8	--	12	--
4. Bite	56	4	75	9
5. Bruise/contusion	1,214	4	2,213	10
6. Burn/scald	120	14	168	51
7. Concussion	274	1	274	--
8. Cut/laceration	1,979	20	2,200	27
9. Dislocation	272	--	275	--
11. Fracture	1,742	2	1,731	4
12. Poison (solid or liquid)	3	1	10	1
13. Poison (gas or vapor)	--	--	5	--
14. Puncture wound	167	1	292	3
15. Scratch	103	--	111	2
16. Shock (electrical)	2	--	2	--
17. Sprain/strain	1,677	--	1,893	2
20. Teeth injury	326	1	357	--
21. Internal injuries	13	--	23	--
22. Other	256	--	338	11
Not stated	65	7	205	3

Source: Kansas Student Accident Program, Bureau of Registration and Health Statistics, Kansas Department of Health and Environment.

*Code numbers

the science injuries result from burns or scalds and cuts or lacerations. Certainly this type of information provides a basis for safety education programs and makes teachers aware of possible hazards and potential classroom accidents.

It should be pointed out that the accident information reported to the Kansas Department of Health and Environment is on a voluntary basis, nevertheless, a great majority of Kansas schools are involved in the program.[3]

In summary, it is evident that data on school accidents and pupil injuries occurring in science activities are scarce. Data presented in the chapter did reveal that approximately 5,000 science-related school accidents occur each year, mostly in grades seven through twelve. Other data showed that the rate of injury is highest for pupils in grades seven through nine and that most student injuries result from cuts and burns. Science teacher liability is greatest for laboratory instructors because of the projects and experiments performed and the equipment used.

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[3]Crevoiserat, Charles A., Jr. Acting Chief, Research and Analyst Section, Bureau of Registration and Health Statistics. Personal Communication, January 7, 1977.

Chapter 4

ANALYSIS OF COURT CASES

Recorded cases were identified and analyzed in this chapter. The chapter is organized into two major sections. Section one discusses the cases decided in favor of the defendants while section two discusses the cases decided in favor of the plaintiffs. The cases in each section are categorized according to the doctrine(s), rule(s), or principle(s) of law employed by the courts in deciding the cases. A summary of the cases with respect to grounds for suit and court reasoning follows each major section and a capsule summary for the cases appears at the end of the chapter.

INTRODUCTION

In examining the pertinent court cases of this study, an attempt was made to extract at least four elements from each case: (1) the legal problems, (2) the salient facts, (3) the legal principles the court applied in deciding the case and (4) the rule or legal precedent set forth. The decisions of courts of appeallate jurisdiction were used because they are relied upon as legally binding.

The relatively few cases reported in this study does not necessarily mean that there were not more science accidents or other lower court litigation. Many suits are settled out of court with insurance payments, many situations never get litigated, and other cases never reach the appellate level. The paucity of cases reported at the appellate level does not necessarily give the true picture of the dangerous nature of many science activities. While science-related accidents may be a relatively small fraction of all school accidents, the number of students injured or maimed for life as a result of science-connected activities cannot be overlooked by the science instructor who is concerned with maintaining classroom or laboratory safety.[1]

CASES HELD FOR THE DEFENDANT

Doctrine of Contributory Negligence

The doctrine of contributory negligence has been an often-used defense in school tort liability cases. A case which alluded to this doctrine was the New York case of Gregory v. Board of Education appearing in 1927.[2] In this case the court said that it was the duty of the Board of Education to use reasonable care in keeping and distributing chemicals which are potentially dangerous

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[1]Appendix H shows the type of injuries received by the plaintiffs in the cases reported in this study.

[2]Gregory v. Bd. of Education of City of Rochester, 225 N.Y.S. 679 (1927).

in combination.[3] The court, however, held that the board was not liable for injuries sustained by a pupil conducting an unauthorized experiment which was not included as part of the prescribed course of study.

A chemistry syllabus had been prepared by the Board of Regents, but it had not been formally adopted by the Board of Education. The appellate court said that the trial court erred in instructing the jury that the defendant Board might be liable if it had omitted to prescribe a suitable course of study. The appellate court reasoned that such omission had no causal connection with the plaintiff's injury.

Although the court did not specifically state that the plaintiff in Gregory was contributorily negligent, it might be viewed under the facts of the case that this is what the court reasoned in handling down its decision in favor of the defendant school board.

In New York the tort liability of the state was considered in the Court Claims Act of 1929 which abolished the state's immunity and made the state liable for the torts of its agents and employees to the same extent that a private person engaged in the same enterprize would be liable. The court noted that pursuant to that legislation, the state

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[3]Under a New York rule, school districts or school boards could be liable for negligence resulting from non-performance of the board's duty of exercising reasonable care.

became liable for the negligence of teachers and other employees in its schools. In statutes relating only to schools,[4] the New York legislature has also prescribed that boards of education shall "save harmless" teachers, supervisors, officers, or employees from damages due to negligence which results in personal injury or damage to property.[5] In the section affecting New York City, there is, in addition to the "save harmless" clause, a direct liability provision. Without referring in most instances to specific statutory provisions, the New York courts have imposed or denied liability under the applicable statutes. Wilhelm v. Board of Education of the City of New York represents the case in point where liability was denied.[6]

In Wilhelm, a thirteen-year-old student who was a participant in a special program for superior ninth grade students was assigned a project of building a record player

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[4]N.Y. Education Laws, Sections 2506, 2652, 3023, 3024.

[5]Several states have enacted "save harmless" statutes. The school districts "save harmless" their employees from claims arising out of the employees' negligence committed within the course and scope of their employment. California, Connecticut, Massachusetts, Minnesota, New Jersey, New York and Wyoming have enacted "save harmless" statutes. In most of these states the school district must "save harmless" the employee by paying the judgment awarded against the employee. (Alexander, Kern, Ray Corns and Walter McCann. Public School Law: Cases and Materials. St. Paul, Minnesota: West Publishing Co., 1969, p. 379).

[6]Wilhelm v. Board of Education of the City of New York, 227 N.Y.S. 2d 791 (1962).

in the school laboratory without teacher supervision. After spending about ten minutes on the project, the plaintiff and a fellow student began "horsing around" with chemicals in glass bottles which were on a shelf in the laboratory. They were attempting to prepare fuel for a missile. Knowing that the chemicals were dangerous, the boys nevertheless were mixing and grinding them in a pewter bowl when there was a flare-up which resulted in serious injury to the plaintiff. The appellate court held that the student was contributorily negligent as a matter of law in that he, without permission and with knowledge of the risk involved, mixed and ground chemicals which resulted in his injury.

A North Carolina statute,[7] which creates an industrial commission as a court for hearing and ruling on tort claims against the state board of education and other state agencies, has provided a statutory basis for suits involving school boards. One such case identified by this study was

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[7]Ch. 1059, Section 1, 1951, codified now as general statutes 1958, Art. 31, sections 143-291. The statute provides for the payment of damages for personal injuries sustained by any person "as a result of a negligent act of a state employee while acting within the scope of his employment and without contributory negligence on the part of the claimant or the person in whose behalf the claim is asserted." Article 31, section 43 of the General Statutes has no application with respect to the acts of employees of city or county administrative units. By taking liability insurance they may waive their governmental immunity and hence be liable for the tort of their employees to the extent authorized by General Statutes, sections 115-153.

McBride v. North Carolina State Board of Education where liability was denied.[8]

The plaintiff, a fifteen-year-old ninth grade male student, took approximately one tablespoonful of sodium peroxide from an unlocked cabinet in his classroom. The teacher was not in the room at the time. The plaintiff intended to experiment with the chemical at home. He knew that it would burn when exposed to water. While the plaintiff was at home engaged in play, he became sweaty and placed his hand in the pocket containing the chemical. It exploded, and the plaintiff was severely burned. The court held that:

> There has been no showing of any negligence upon the part of an employee or agent of the defendant North Carolina State Board of Education.[9]

The plaintiff had alleged that the science teacher was negligent, but the plaintiff was barred from recovery because he was found to be contributorily negligent.

In Hutchinson v. Toews a fifteen-year-old student and his companion made an explosive out of potassium chlorate and powdered sugar.[10] According to testimony, the potassium chlorate was taken by the companion from an unattended

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[8]McBride v. North Carolina State Board of Education, 125 S.E. 2d 393 (1962).

[9]Ibid., p. 394.

[10]Hutchinson v. Toews, 476 P. 2d 811 (Ore. 1970).

chemical storage room without the teacher's knowledge or consent.

The plaintiff and friend got the formula for the explosive from a pamphlet provided by a mail order firm in Michigan which stated that the mixture was very powerful and dangerous. The formula which the boys used was one labeled "powerful rocket fuel." It was not listed as cannon fuel. In an attempt to shoot a homemade cannon with the mixture there was an explosion which injured the plaintiff's hands.

In the initial complaint the plaintiff alleged that the defendant teacher had "supplied" the potassium chlorate. On disclosure that the substance was taken by the companion student, plaintiff amended the complaint which also named the school district as a defendant and alleged that "the defendants supplied and made available" the potassium chlorate.

The affirmative defenses in the case were contributory negligence and assumption of risk. The trial judge said:

> Two young men went out for the avowed purpose of shooting off a cannon and fooling with explosives. They were aware--I think, taking all the testimony together, they were fully aware that this was dangerous. Perhaps no one would anticipate that this thing would blow up in exactly the manner it did, but still, when you're fooling with explosives there is an element of danger which you are assuming, and that element of danger is that someone is going to get hurt if extreme caution is not taken.[11]

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[11] Ibid., p. 812.

In Hutchinson the court concluded that the plaintiff had knowledge of the risk involved and that he was contributorily negligent.

In related cases involving tort liability of suppliers of explosives to children, the basis for judgment usually depends on whether the plaintiff had or should have had knowledge and understanding so that he could have avoided the explosion.[12]

In Moore v. Order Minor Conventuals,[13] for example, a fifteen-year-old student at a private school in North Carolina lost an eye and a hand when red phosphorus added to a "gunpowder mixture" of potassium nitrate, sulfur and manganese dioxide, exploded.[14] Even though the instructor was not present when the plaintiff obtained the chemicals from an unlocked cabinet, the court found the plaintiff contributorily negligent. Testimony from his companions clearly indicated their objections and warnings concerning his adding

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[12]Moore v. Order Minor Conventuals, 267 F. 2d 296 (4th Cir., 1959); E. I. Du Pont de Nemours and Co., v. Edgerton, 231 F. 2d 430 (8th Cir., 1956); Bolar v. Maxwell Hardware Co., 205 Cal. 396, 271 P. 2d 97, 60 A.L.R. 429 (1928); distinguished but not overruled in Mastrangelo v. West Side Union High School District, 2 Cal. 2d 540, 43 P. 2d 634 (1935); Shields v. Costello, 229 S.W. 411 (Mo. App. 1921); Wilhelm v. Board of Education of City of New York, supra.

[13]Moore v. Order Minor Conventuals, supra.

[14]Unable to find charcoal to mix with the potassium nitrate and sulfur, the student used manganese dioxide.

the red phosphorus to create a "planned" explosion. Said the court:

> It is perfectly clear that Moore's companions were voicing their objections and warnings. There was testimony that almost every one of the other boys voiced such warnings, one of them testifying that he told Moore if he wasn't careful he would "kill us all." Moore persisted in the face of these warnings, as a venturesome boy sometimes persists even in the face of obvious danger . . . Even boys of extraordinary intelligence sometimes act imprudently. Sir Winston Churchill is said to have blown himself high into the air with a self-made bomb when he was a student in Harrow.[15]

Duty of Instruction and Supervision

Negligent conduct in the classroom includes two broad areas that often cannot be separated--the duty of instruction and the duty of supervision. These situations arise when teachers do not explain basic procedures or fail to warn students of inherent risks involved in certain activities. The duty of a teacher to properly instruct and supervise was involved in the case of Gaincott v. Davis.[16]

In Gaincott an eight-year-old girl fell from a chair upon which she was watering plants with a glass bottle in a nature conservatory. During the fall, the bottle slipped, crashed to the floor, and was broken. The plaintiff fell on the broken glass and severely cut her wrist. The plaintiff alleged that the defendant teacher had disregarded her duty

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[15]Moore v. Order Minor Conventuals, supra at 298.

[16]Gaincott v. Davis, 275 N.W. 229 (Mich. 1937).

when she ordered the plaintiff to do an act which jeopardized her safety and injured her.

The defendant teacher was found not guilty of actionable negligence because no willful or wanton negligence was believed to exist. The court said:

> The act which plaintiff was requested or directed by defendant to perform was in the regular course of the school activities. There was nothing in the nature of the act itself or the instrumentalities with which plaintiff was permitted to perform the act which would lead a reasonably careful and prudent person to anticipate that the child's safety or welfare was endangered in the performance of the act. The mere fact an accident happened, and one that was unfortunate, does not render defendant liable.[17]

The court further stated that:

> At least in a limited sense the relation of a teacher to a pupil is that of one of in loco parentis. We are not here concerned with the law applicable to punishment of a pupil by a teacher; but rather with the law applicable to the duties of a teacher in the care and custody of a pupil. In the faithful discharge of such duties the teacher is bound to use reasonable care, tested in the light of the existing relationship. If, through negligence, the teacher is guilty of a breach of such duty and in consequence thereof a pupil suffers injury, liability results. It is not essential to such liability that the teacher's negligence should be so extreme as to be wanton or willful.[18]

The Gaincott case indicates that the duty of a teacher is based on the teacher-pupil relationship of in loco parentis, and that because the teacher has the care and custody of his pupils with right to govern and control them in their school work, he must act so as not to injure them.

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[17] Ibid., p. 231.

[18] Ibid.

The case of Engel v. Gosper involved a voluntary act of students performing a rocket experiment which was not required as part of their general science course.[19] The experiment resulted in the death of a student. The accident did not occur in school, yet two science teachers became defendants in the litigation. One of the teachers had terminated her instruction of the students two years before the accident.

The original defendants were the two boys who made and ignited the missile. The plaintiff then amended her complaint to add the two science teachers of the minor defendants and the two boards of education who employed the teachers. The amended complaint naming the two teachers as defendants alleged that:

> . . . the teachers improperly instructed the boys with respect to the rockets, encouraged them to experiment with them, failed to warn of the danger involved, and in other respects negligently contributed to bring about the tragic result.[20]

The boards of education were charged with the acts of the teachers under the doctrine of respondeat superior in that they hired allegedly unsuitable instructors.[21]

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[19]Engel v. Gosper, 177 A. 2d 595 (N.J. 1962).

[20]Engel v. Gosper, supra at 596.

[21]The maxim respondeat superior, literally "let the master answer," means that a "master" is liable in certain cases for the wrongful acts of his "servant."

The judgment for the defendants in this case involved a change in venue,[22] but the court did note that it was doubtful that the plaintiff would be successful in any subsequent litigation. The disposition of this case is still pending.

The lesson is clear: In addition to providing adequate supervision, teachers have a duty to instruct properly and must warn students of any dangers involved in activities in which they are instructed and encouraged to participate.

Doctrine of Intervening Cause

The doctrine of intervening cause was applied in the case of Frace v. Long Beach.[23] In Frace a janitor unlocked a chemistry supply room and allowed two high school students to enter. The janitor's act was contrary to school rules. Left unsupervised, the students removed from the storeroom a quantity of potassium chlorate and phosphorus and took the chemicals to the garage of one of the boys. The plaintiff, Frace, watched the other two boys experiment with the chemicals without injury. The plaintiff then asked one of the boys if he could use the chemicals for an experiment. Frace was given small quantities of the chemicals. He mixed

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[22]The student had received his injuries in one county but death occurred in another.

[23]Frace v. Long Beach City High School, 137 P. 2d 60 (Cal. 1943).

them in a container and shook them, and in the resulting explosion received injuries for which he sued.

Allegations by the plaintiff included a statement that because of his immature age, inexperience, and lack of knowledge of the dangerous nature of the chemicals, he was not aware that an explosion would take place, and therefore was not contributorily negligent. The plaintiff further argued that the defendant might be held liable by the rule establishing liability in certain cases where one permits children to play with an attractive but dangerous device, namely, the rule of the "turntable cases"[24] and the rule holding a negligent actor liable for failing to forsee or anticipate an intervening act by a third party which results in direct injury to the plaintiff.

In this last regard the plaintiff relied on the case of Hale v. Pacific Telephone and Telegraph Co.[25] In Hale

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[24]Doctrine also termed attractive nuisance doctrine, is that one who maintains or creates upon his premises or upon the premises of another in any public place an instrumentality or condition which may reasonably be expected to attract young children and to constitute a danger to them is under duty to take the precautions that a reasonably prudent person would take under similar circumstances, to prevent injury to such children. Schock v. Ringling Bros., and Barnum and Bailey Combined Shows, 5 Wash. 2d 599, 105 P. 2d 838, 843 (1940). The dangerous and alluring qualities of a railroad turntable gave the "attractive nuisance rule" the name of "Turntable Doctrine." Louisville and Nashville Railroad Co., v. Vaughn, 292 Ky. 120, 166 S.W. 2d 43, 46 (1942).

[25]Hale v. Pacific Telephone and Telegraph, supra.

an eight-year-old boy entered the storehouse of a telephone company and took some dynamite caps. Knowing he was wrong, he gave the caps to another boy, seven years old, who exploded one in a toy pistol and was injured. The appellate court reversed the lower court's judgment and found for the defendant. The court reasoned that the boy who stole the caps was acting as an intervening agent whose actions were not reasonably foreseeable by the defendant. The plaintiff in Frace relied on the following language in Hale for part of its argument:

> . . . where the original negligence of a defendant is followed by an independent act of a third person, which results in a direct injury to a plaintiff, the negligence of such defendant may nevertheless constitute the proximate cause thereof if, in the ordinary and natural course of events, the defendant should have known the intervening act was likely to happen; but if the intervening act constituting the immediate cause of the injury was one which it was not incumbent upon the defendant to have anticipated as reasonably likely to happen, then, since the chain of causation is broken, he owes no duty to the plaintiff to anticipate such further acts, and the original negligence cannot be said to be the proximate cause of the final injury.[26]

It was held in Frace that although the school district was liable for its own negligence or that of its officers or employees, it was not liable for the student's injuries, since the mere act of permitting the two students to enter and remain in the storeroom did not constitute actionable negligence, and even if it did constitute negligence, it was

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[26] Ibid., p. 281.

not the proximate cause of the injuries, inasmuch as the independent intervening acts of the two students in stealing the chemicals and in giving them to the plaintiff, as well as the latter's act in experimenting with them, were not reasonably foreseeable by school authorities.

Governmental Immunity

In the case of Desmarais v. Wachusett the plaintiff lost the sight of one eye when an explosion occurred at the time he was not wearing required safety glasses.[27] The plaintiff argued that the defendant teacher had led his pupils to believe that he would not discipline them in any way if they failed to wear safety glasses during the conduct of dangerous experiments and that the defendant negligently and carelessly failed to use due care in his supervision of the plaintiff. The defendant school district was alleged to be responsible for the actions of the employed teacher. The plaintiff appealed the case from a lower court decision in favor of the defendants. The defendants had argued that the plaintiff did not have grounds for an action in court, that the defendant teacher was a public officer with limited duties and powers and was not liable for the failure to perform the duties of his office, and that the defendant school district

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[27]Desmarais v. Wachusett Regional School District, 276 N.E. 2d 691 (Mass. 1971).

was protected from liability under the doctrine of governmental immunity.

The court stated the general rule that public officers engaged in the performance of public duties are liable only for their own acts of misfeasance in connection with ministerial matters and that the defendant, as a teacher in a public school is governed by the same standard of tort liability as a public officer. The court further pointed out that even assuming that the teacher was bound to require the wearing of safety glasses, he could not be held guilty of misfeasance for mere inaction. The court said that the defendant Wachusett Regional School District had the same protection from liability as a town under the doctrine of governmental immunity.

The plaintiff had argued that governmental immunity was not a defense by reason of statute which provided for the indemnification of teachers for expenses or damages sustained by them in negligence actions.[28] The court, in finding for the defendant, interpreted the statute as not waiving the governmental immunity protection. Moreover, the court continued, a municipality is not liable for the mis-

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[28]The statute, General Laws, Article 41, Section 100 C, provided that a city or town or regional school district should indemnify a teacher for expenses or damages sustained by him by reason of an action or claim against him arising out of his negligence or other act of his resulting in accidental injury to any person. General Laws, Article 40, Section 5 (1) provides that a town may appropriate money for insurance which provides indemnity or protection as prescribed by General Laws, Article 41, Section 100 C.

feasance of public officers "performing duties strictly public" since "the doctrine of respondeat superior does not apply to the 'servants' of one who is acting only as a representative of the government, for the benefit of the public."[29]

Negligence, Generally

In Kaske v. Board of Education action was brought by a student against the Board of Education for injuries sustained when he was set afire by an explosion in general science class.[30] The student was standing by a table where experiments were being performed when the explosion occurred. Allegations by the plaintiff charged the science teacher with negligence. The appellate court affirmed the trial court's not guilty pleas for the defendant, ruling that the lower court's verdict was in accord with the evidence.[31]

Summary of Cases Held for the Defendant

In the cases decided in favor of the defendants, grounds for suit included: (1) failure to exercise due care and take proper precautions, (2) negligence in duty, (3) negligence in instruction and supervision, (4) negligent

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[29]Moynihan v. Todd, 188 Mass. 304, 74 N.E. 368 (1905).

[30]Kaske v. Board of Education in and for School District of Town of Cherry Valley, No. 112 of Winnebago County, 222 N.E. 2d 291 (Ill. 1966).

[31]Only the abstract of this case was published.

actions generally, and (5) misfeasant conduct. Decisions for defendants were based upon the following reasons: (1) contributory negligence, (2) assumption of risk, (3) intervening cause, and (4) governmental immunity. Defendants in the cases included: (1) boards of education, (2) teachers, (3) school districts, and (4) students. The correspondence between the defendants, grounds for suit and court reasoning for the cases can be found in Table 3.

CASES HELD FOR THE PLAINTIFF

The majority of the litigation relating to adequate supervision involves the teacher who is absent from the classroom when a student is injured. Table 4 shows that in eight of the sixteen primary cases reported in this study the teacher was either absent from the classroom when an accident occurred or was not present when materials were taken by students.

No uniform standard for supervision exists and it often varies from one legal jurisdiction to another. The instructor who leaves the laboratory or classroom does risk suit, but the instructor who is present may risk suit also if he improperly instructs or supervises his students.

Table 3

Summary of Cases Decided in Favor of Defendants

1. Case: Gregory v. Board of Education, 1927, N.Y.
   Defendant(s): Board of Education
   Grounds for Suit: Failure to exercise due care and take proper precautions
   Reasoning: Contributory negligence/assumption of risk

2. Case: Gaincott v. Davis, 1937, Mich.
   Defendant(s): Teacher
   Grounds for Suit: Negligence in duty
   Reasoning: No actionable negligence

3. Case: Frace v. Long Beach, 1943, Cal.
   Defendant(s): School District et al
   Grounds for Suit: Negligence in instruction and supervision
   Reasoning: Intervening cause not foreseeable

4. Case: Engel v. Gosper, 1962, N.J.
   Defendant(s): Board of Education, Teachers, Students
   Grounds for Suit: Negligence in instruction and supervision
   Reasoning: Board of Education entitled to greater consideration than private litigants in determining proper venue

5. Case: Wilhelm v. Board of Education, 1962, N.Y.
   Defendant(s): Board of Education, City
   Grounds for Suit: Negligence in instruction and supervision
   Reasoning: No actionable negligence, contributory negligence/assumption of risk

6. Case: McBride v. North Carolina, 1962, N.C.
   Defendant(s): State Board of Education, Local Board of Education
   Grounds for Suit: Negligence in instruction and supervision and negligent actions generally
   Reasoning: Contributory negligence/assumption of risk, lack of instruction

7. Case: Kaske v. Board of Education, 1966, Ill.
   Defendant(s): Board of Education
   Grounds for Suit: Negligence in instruction and supervision and negligent actions generally
   Reasoning: Lower court's verdict in accord with evidence

8. Case: Hutchinson v. Toews, 1970, Ore.
   Defendant(s): School District, Teacher
   Grounds for Suit: Negligence in duty
   Reasoning: Contributory negligence/assumption of risk

9. Case: Desmarais v. Wachusett, 1971, Mass.
   Defendant(s): School District, Teacher
   Grounds for Suit: Negligence in instruction and supervision; negligence in duty; misfeasant conduct
   Reasoning: Governmental immunity; not guilty of misfeasance

Table 4

Location of Student and of Teacher at Time of Accident or Incident

Case	Year	State	Location of Accident	Location of Teacher
Gregory	1927	N.Y.	Classroom	Data not available
Damgaard	1931	Cal.	Laboratory	Demonstrating/front of classroom
Mastrangelo	1934	Cal.	Laboratory	Fifteen feet behind plaintiff
Gaincott	1937	Mich.	Nature Conservatory	Adjoining classroom
Frace	1943	Cal.	Home	Not present when chemicals taken
Reagh	1953	Cal.	Stairwell of school	Not present when chemicals taken
Engel	1962	N.J.	Home	Data not available
Wilhelm	1962	N.Y.	Laboratory	Not present
McBride	1962	N.C.	Home	Not present when chemicals taken
Kaske	1966	Ill.	Classroom	Data not available
Hutchinson	1970	Ore.	Home	Not present when chemicals taken
Desmarais	1971	Mass.	Classroom	Present
Station	1974	La.	Gymnasium	Not present
Wentz	1974	N.D.	Classroom	Not present
Simmons	1975	La.	School Bus Stop	Data not available
Maxwell	1975	N.M.	Classroom	Present (assumption)

Doctrine of Res Ipsa Loquitur[32]

The California Supreme Court applied the doctrine of res ipsa loquitur in Damgaard v. Oakland High School.[33] The action against the school district and Board of Education arose out of injuries sustained by a seventeen-year-old high school student through an explosion of chemicals which occurred during an experiment before a chemistry class in which the plaintiff was a student. The experiment, involving the production and use of explosive gases, was being performed by the teacher when an explosion occurred causing the destruction of the plaintiff's right eye.

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[32]In order that the doctrine of res ipsa loquitur should apply to a given case the plaintiff must have first shown by a preponderance of evidence that certain conditions existed; amongst these conditions are the following: (1) that the general experience of mankind shows that the accident was such that it does not usually occur in the ordinary course of events without negligence upon the part of those in control, and (2) the person against whom the doctrine is sought to be invoked must have been in control of that instrumentality, and (3) the person invoking the doctrine must not be in a position to know the cause of the accident, and (4) the person against whom the doctrine is invoked must possess or have possessed superior knowledge as to the cause of the accident or must be or have been in a better position to obtain that knowledge, so that the duty of explaining the accident should, in fairness, rest upon him on account of that greater knowledge or greater means of knowledge. (Parker et al v. James E. Granger, Inc., et al, and seven other cases, 52 P. 2d 228 (Cal. 1935).

[33]Damgaard v. Oakland High School District of Alameda County, 298 P. 983 (Cal. 1931).

The defendant teacher was unable to explain the reason for the explosion, and she could not show that she was not negligent or that she did not contribute to the cause of the explosion.

In upholding the applicability of the res ipsa loquitur doctrine, the court said:

> It need hardly be stated that the situation presented . . . is one to which the doctrine of res ipsa loquitur ought to be given precise application, since the pupils in a public school receiving instruction in the rudiments of chemistry could not in reason be expected to know in advance the very matters with respect to which they were undergoing instruction; while, on the other hand, their teachers undertaking to instruct them by the method of experimentation through the employment of substances, materials, and gases liable to explode, unless handled and brought into combination with scientific delicacy and care, should know and should be able to explain in the event of an explosion why and how it occurred, and that no negligence upon their part constituted or contributed to its causation.[34]

The doctrine may be applied by a court when it is reasonable to state that under the circumstances the injury to the plaintiff would not have occurred without the defendant's negligence; the instrumentality causing the injury was completely within the control of the defendant; and the plaintiff neither voluntarily nor negligently contributed to his injury. The teacher's explanation that he or she did not know what happened may not be enough to avoid liability.

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[34] Damgaard v. Oakland, supra at 987.

In Damgaard the plaintiff was awarded $15,000 for the loss of his eye. This award has been used as a basis for court orders modifying other awards.[35] Maede represents a case in point of injury very similar in all respects to Damgaard, even to the loss of an eye caused when a faulty pressure gauge on an oxygen tank exploded in an oxyacetylene welding class.[36] In Maede the jury in the lower court had awarded the plaintiff damages amounting to $35,000. However, citing Damgaard, the Supreme Court of California reduced the judgment to $16,000. The court reasoned that the plaintiff did not suffer any damages greater than that of the Damgaard youth.

During the appeal the defendants in Damgaard argued that the school district was not liable for personal injuries arising out of the negligence of the district, its officers or employees. They based their contention on a state statute which they claimed did not give a pupil the right to an

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[35]Katz v. Helbing, 1 P. 2d 1079 (Cal. 1931); Maede v. Oakland High School District of Alameda County, 298 P. 990 (Cal. 1931).

[36]Maede v. Oakland, supra.

action against the school district.[37] However, the court was of the opinion that the statute did give a pupil a right of action to a claim against the district. The court cited the case of Ahern v. Livermore--a landmark case where a school district was found liable in a negligence action.[38] In Ahern the sum of $3,500 was awarded the plaintiff who lost two fingers severed by a power saw in a manual training class. The Ahern case, which had also considered the amended California statute, set a precedent and influenced the decision in Damgaard.

The statute, as interpreted by the court in Ahern, provided authorization for school boards to pay judgments and gave students the right to institute action against school districts to recover for injuries sustained as a result of a school district's negligence. Prior to the enactment of the statute the doctrine of sovereign immunity provided protection against negligence suits.

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[37]Political Code, Sect. 1623, as amended by St. 1923, p. 298, provided that school authorities should be liable in name of the district "for any judgment against the district on account of injury to any pupil arising because of the negligence of the district or its officers or employees, and they must pay any judgment for debts, liabilities or damages out of the school fund." (Ahern v. Livermore Union High School District of Alameda County, 284 P. 1105 at 1106 (Cal. 1930).

[38]Ahern v. Livermore, supra.

Failure to Use Reasonable Care and to Properly Instruct and Supervise

The California case of Mastrangelo v. West Side Union High School District is classic[39] and has been cited often.[40] In Mastrangelo students in a high school chemistry class had been instructed in the making of gunpowder. The plaintiff, a sixteen-year-old boy, had previously performed the experiment successfully, following instructions. While later performing the experiment in class with another boy, and without supervision, an explosion occurred which resulted in serious injury.[41]

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[39]Mastrangelo v. West Side Union High School District of Merced County, 42 P. 2d 634 (Cal. 1935).

[40]Angelus Securities Corp. v. Ball, 67 P. 2d 152 at 158 (Cal. 1937); Bellman v. San Francisco High School Dist. 73 P. 2d 596 at 600 (Cal. 1937); Amendt v. Pacific Electric Ry. Co., 115 P. 2d 588 at 592 (Cal. 1941); Archer v. City of Los Angeles, 119 P. 2d 1 at 4 (Cal. 1941); Balian v. Balian's Market, 119 P. 2d 426 at 429 (Cal. 1941); Crane v. Smith, 144 P. 2d 356 at 362 (Cal. 1943); Seaford v. Smith, 194 P. 2d 792 at 794 (Cal. 1948); Connors v. Southern Pacific Co., 206 P. 2d 31 at 34 (Cal. 1949); Golceff v. Sugarman, 222 P. 2d 665 at 666 (Cal. 1950); Lilienthal v. San Leandro Unified School District of Alameda County, 293 P. 2d 889 at 892 (Cal. 1956); Youngblood v. City of Los Angeles, 322 P. 2d 274 at 282 (Cal. 1958); White v. Shultis, 2 Cal. Rptn. 414 at 417 (Cal. 1960); Calandri v. Ione Unified School Dist. of Amador County, 33 Cal. Rptn. 333 at 336 (Cal. 1963); Morris v. Ortiz, 437 P. 2d 652 at 657 (Ariz. 1968); Hutchinson v. Toews, supra, at 814.

[41]The student lost his left hand, and his right hand was seriously injured. The student also lost his right eye and serious damage was done to his left eye.

Either by mistake or intent, potassium chlorate was substituted for potassium nitrate and the ingredients were mixed together in an iron mortar with a pestle--in contradiction to textbook instructions, which directed the ingredients to be pulverized separately on sheets of paper.

The trial court judged in favor of the defendant school district, reasoning that the plaintiff had failed to show a legal cause of action. The appellate court, however, reversed the lower court's judgment and determined that a jury could find that a high school chemistry teacher was negligent in failing to exercise reasonable care in providing and labeling dangerous materials used in gunpowder experiments, and in failing to properly instruct and supervise the selection, compounding, and handling of the ingredients.

The court said:

> It is not unreasonable to assume that it is the duty of a teacher of chemistry, in the exercise of ordinary care, to instruct students regarding the selection, mingling, and use of ingredients with which dangerous experiments are to be accomplished, rather than to merely hand them a textbook with general instructions to follow the text. This would seem to be particularly true when young and inexperienced students are expected to select from similar containers a proper harmless substance rather than another dangerous one which is very similar in appearance.[42]

The defendant school district and Board of Trustees had argued that the plaintiff was contributorily negligent in that he recklessly experimented with dangerous ingredients

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[42]Mastrangelo v. West Side, supra at 636.

with knowledge of the danger involved. However, the court supported the view that the student was ignorant of the danger of gunpowder experiments and that neither the textbook nor the teacher properly warned him against mixing the ingredients in a mortar with a pestle.

An interesting aspect of the case was the application of the "Must Have Seen" rule. The plaintiff testified that the chemistry teacher was there, that he walked behind the plaintiff while the latter was mixing the improper ingredients and that he did not say anything to the plaintiff. At the time of the explosion the teacher was fifteen feet behind the plaintiff and looking toward him. From this evidence a reasonable inference may be drawn that the chemistry instructor saw the grinding of the ingredients, yet he failed to warn the boys against the danger of that method of mixing them.

The defendants contended that the conclusion reached by the court was in conflict with, among other cases, the decision of the court in Bolar v. Maxwell.[43] In Bolar a fifteen-year-old boy had purchased gunpowder at the defendant's store, constructed a "cannon," loaded and discharged it. The resulting explosion injured him severely. In this case it was held that the child was of sufficient age to be

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[43]Bolar v. Maxwell, supra.

charged with contributory negligence. Said the court in Bolar:

> The plaintiff constructed the dangerous device himself, the whole plan originating in his own mind. The idea of a soda straw as a substitute for a fuse, the capping of the pipe, the boring of the breech hole, the mounting of the cannon, loading it, and the ignition of the fuse were all independent ideas of his own, carried out secretly, as he well knew that both parents, if cognizant of his plans, would have forbidden their execution. He knew, at least to some extent, of the explosive power of gunpowder . . . Not only was he possessed of all the knowledge, intelligence, and experience of an ordinary fifteen-year-old boy with respect to these matters, but he might well be classed as above average in such respect.[44]

The court said that the Bolar case was different from the instant case of Mastrangelo in that it involved a voluntary act by the child. In Mastrangelo a particular experiment was prescribed as part of the regular course of study and the plaintiff was required to perform it.

Lack or Insufficience of Supervision

School districts, school boards, or other authorities in charge of public schools may, by means of particular statutory provisions affecting the rule of governmental immunity,[45] be liable for injuries to pupils resulting from failing to supervise, or to properly supervise, the conduct or activities of pupils under their control. Statutes,

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[44] Ibid., p. 99.

[45] See Appendix G for the current status of the sovereign immunity doctrine in the United States.

rules and regulations decreed by state boards of education or local educational agencies pertaining to the supervision of such pupils often exist, and liability may arise for personal injuries to pupils resulting from a breach of such statutes, rules or regulations.

In Reagh v. San Francisco Unified School District liability was upheld under the circumstances involved.[46] In this case the plaintiff asked for and received some red phosphorus from his chemistry teacher to be used to make a smoke screen on R.O.T.C. maneuvers. The day before the student was injured in an explosion the chemistry teacher gave the plaintiff a piece of white phosphorus, which she allegedly told the plaintiff could be used as a trigger to ignite the red phosphorus. In order to make a lot of smoke the plaintiff asked the chemistry teacher if potassium chlorate and sugar added to the red phosphorus would increase the amount of smoke. The chemistry teacher indicated to the plaintiff that it would.

On the day of the explosion, the chemistry teacher allowed the plaintiff to put 100 cc's of red phosphorus in a clean glass container. The teacher, with back to plaintiff, was talking to another teacher when the plaintiff went to an open shelf and took some potassium chlorate

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[46]Reagh v. San Francisco Unified School District, 259 P. 2d 43 (Cal. 1953).

and sugar and placed them in a container with the red phosphorus. The student left, and on his way downstairs, the mixture in the container exploded spontaneously resulting in the loss of his left hand and other serious injuries.

The main issue in the case was whether or not the chemicals should have been kept under lock and key. Importantly, the pupil adduced evidence that in private schools in the vicinity the potassium chlorate, which he had obtained from an open shelf, was always kept in locked cabinets. The court said:

> Evidence of custom in the same trade or occupation is admissible for the consideration of the jury, but it is not conclusive on the question of what constitutes ordinary care. Conformity to "the general practice of custom would not excuse the defendant's failure unless it was consistent with due care."[47]

The plaintiff relied heavily on the language in Brigham Young University v. Lillywhite for the proposition that evidence of the practice followed in similar institutions is admissible for consideration of the jury.[48] In Brigham Young action was brought by a female student against the university for injuries resulting from the explosion of a mixture of red phosphorus, potassium chlorate and ferric oxide when heat from a bunsen burner was applied. The

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[47] Ibid., p. 46.

[48] Brigham Young University v. Lillywhite, 118 F. 2d 836 (10th Cir., 1941), 137 A.L.R. 598.

plaintiff charged that: (1) she was inexperienced in chemistry and chemical reactions and of the materials required for carrying out the experiment, (2) the chemicals used in the experiment were highly dangerous, (3) the instructor failed to warn the plaintiff of the danger in the performance of the experiment, (4) the defendant university failed to provide adequate supervision and was negligent in the conduct and operation of the laboratory in which the experiment was performed, in that it permitted the instructors in charge to leave said laboratory while the plaintiff was engaged in performing the experiment.

Over strenuous objections of the defendants, the plaintiff in Brigham Young offered the testimony of a high school chemistry instructor and a chemistry professor of a local university for the purpose of testifying with respect to the standard of care they exercised in similar activities. In regard to this the court said:

> When evidence of the conduct of others in the same or similar circumstances is admitted in a negligence case and the jury is admonished, either at the time it is admitted or by proper instruction in connection with its admission, that it was admitted merely to show what precautions are generally taken in such cases as bearing on the degree of care enjoined on the defendant by his relationship to the plaintiff, the evidence is admissible for that purpose.[49]

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[49] Ibid., p. 837.

On the question of the university's liability for the student's injuries, the court said that it was the university's duty to furnish instruction and supervision, and the degree of supervision was measured in quality by what an ordinary institution of the same type would have furnished under the same or similar circumstances. In its judgment for the plaintiff, the court said: " . . . it is manifest that the negligent conduct of the defendant was the legal cause of the harm sustained by the plaintiff."[50]

Respondents in Reagh had contended that the minor wrongfully and tortiously took the potassium chlorate, which is a defense according to the authority in Frace v. Long Beach and others.[51] The respondents also argued that the evidence showed that the minor was guilty of contributory negligence because he had been making gunpowder and similar explosives for a number of years which had included the use of potassium chlorate. The court held that it could not be said that the boy's action in taking the chemicals from an open shelf in the classroom and placing them in a container with red phosphorus established that he was contributorily negligent.

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[50] Ibid., p. 842.

[51] Frace v. Long Beach, supra; Bradley v. Thompson, 65 Cal. App. 226, 223 P. 572 (1924); Hale v. Pacific Telephone and Telegraph, supra; Nicolosi v. Clark, 169 Cal. 746, 147 P. 971 (1915).

The student had testified that he did not know that the mixture would result in a spontaneous combustion and that the teacher had never instructed him as to the danger of combining the chemicals. This points out the fact that even if a pupil takes a chemical from a shelf without permission, he may not be held negligent if he did not know of its dangerous characteristics and had never been instructed accordingly.

There is a principle of law which holds that if a prudent school district and its teachers would have kept a supply of a particular chemical under lock and key, or would otherwise have controlled its use by students except under a teacher's supervision, then it is the duty of the school board to observe such precaution. Therefore, a teacher or school district must exercise good judgement in keeping dangerous chemicals from pupils and in preventing them from being used by pupils except under supervision.

Failure to Warn

In Station v. Travelers Insurance Company action was brought by the father of a child who was injured in junior high school by the explosion of an alcohol-burning device being used in a science project.[52] The project was a steam turbine which required a heat source.

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[52]Station v. Travelers Insurance Co., 292 So. 2d 289 (La. 1974).

On the day of the Science Fair the burner went out, as it had consistently done on prior occasions. Two of the three girls who were working on the project attempted to relight the burner in the way they had previously seen their teacher do it. As one girl was pouring the alcohol, the other struck a match to the unit and the glass container of alcohol exploded. Geraldine Station, who was standing close by, sustained severe burns to her right hand, sides and thighs.

The plaintiff brought suit against the School Board and its liability insurer. The insurance company filed a third party demand against the teacher for recovery from him should they be found liable for damages. Subsequently, judgment was rendered by the trial court in favor of the father, personally in the amount of $389.95 and, as administrator of the estate of his daughter, in the amount of $7,500. In addition, judgment was rendered in favor of Travelers Insurance Company on its third party demand against the teacher. The teacher appealed the judgment.

The district judge found that the teacher was negligent in that he failed to fully instruct the girls, or anyone else who might assist them, of the dangerous nature of the alcohol. The teacher was also found negligent because he did not positively warn the students that the burner was not to be relighted by them should it go out. The appellate court

further found that due to the teacher's prior experience with the burner, he should have anticipated that it would go out and that his failure to warn the students or provide adult supervision amounted to negligence under the circumstances--that negligence being the proximate cause of the student's injuries.

Pleas of contributory negligence and assumption of risk by the defendant were overruled. The district court found that the plaintiff did not know of the danger nor did she take part in the abortive attempt to relight the burner. The appellate court affirmed the trial court's judgment. The court pointed out that:

> . . . where one creates, deals in, handles or distributes an inherently dangerous object or substance, that an extraordinary degree of care is required of those responsible (citations). This duty is particularly heavy where children are exposed to a dangerous condition which they may not appreciate. (citation) [53]

The defendant teacher had argued that negligence on the part of the two girls who tried to relight the burner was an intervening cause which should relieve him of liability. In this regard the court said, " . . . these events should reasonably have been anticipated by Wilson (teacher) and protected against because of the high degree of care incumbent upon him due to the dangerous condition which he created . . . "[54] (parenthesis added)

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[53] Ibid., pp. 291-292.

[54] Ibid., p. 292.

Improper Instructions to the Jury (Error in Law)

The doctrine of comparative negligence was mentioned but not applied in Wentz v. Deseth where the appellate court reversed the lower court which had denied the plaintiff's motion for a new trial.[55] An eighth grade student suffered burns during a candle-making project supervised by the teacher. According to testimony, the teacher on leaving the classroom had instructed the students to put out the candles. During the teacher's absence someone relit the candle on the plaintiff's desk, and while the plaintiff was seated at his desk and engaged in conversation with other students, someone poured after-shave lotion on the flame of the candle. The lotion caught fire, spread to the plaintiff's clothing and severely burned him. There was nothing in the testimony which showed that the plaintiff had any knowledge of the dangerous flammability of the after-shave lotion, or that he had anything to do with igniting it or that he even knew it was being ignited. The lotion was being used to add scent to the candles and the teacher was aware of its presence, intended use and knew that it was flammable.

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[55]Wentz v. Deseth, 221 N.W. 2d 101 (N.D. 1974); The affirmative defenses of assumption of risk and contributory negligence are no longer law in North Dakota. Negligence cases since 1973 have been governed by the doctrine of comparative negligence. The action in Wentz v. Deseth arose and was tried prior to the adoption of this doctrine and was governed by the former law.

In reversing the lower court's decision which had been decided in favor of the defendant teacher, the appellate court said:

> It is error for trial judge to instruct jury in negligence action as to doctrine of assumption of risk where there is no evidence that the plaintiff knew of an abnormal danger, had freedom of choice to avoid it, and voluntarily exposed himself to the danger, to his injury.[56]

The court further pointed out that:

> The giving of an instruction which confusingly blends elements of definitions of contributory negligence, assumption of risk, and the degree of care to which minors are held, is reversible error.[57]

This case is interesting in that the appellate court found the instruction given to the jury of the trial court confusing and could not determine whether the jury found for the defendant on the erroneous ground that there was an assumption of risk, or whether it decided for the defendant as it had a perfect right to do--on the grounds of intervening cause. The court reasoned as follows:

> The burning candle sitting on Wentz's (plaintiff) desk, undisturbed, was not the proximate cause of Wentz's injuries. There was an intervening cause, put in motion by another student's pouring or squirting the after-shave lotion upon the candle, thereby igniting the lotion, which resulted in flames spewing from the container. It was these flames which caused the injury, not the flame of the candle.[58] (parenthesis added)

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[56] Ibid., p. 102.

[57] Ibid.

[58] Ibid., p. 103.

The court pointed out that if the instructions to the jury had been clearly correct, it might have assumed that the jury found for the defendant on the grounds of intervening cause and would have affirmed the judgment in favor of the defendant.

There were two dissenting judges in Wentz. One judge did concur in the opinion of the majority that it was an error to instruct the jury on the doctrine of assumption of risk, but he was also of the opinion that it was error without prejudice and that he could find no evidence to support a finding of negligence on the part of the defendant. The other dissenting judge did not agree that the trial court erred in instructing the jury on the defense of assumption of risk, reasoning that the evidence adduced was sufficient to warrant the instruction. In his written opinion the judge supported the trial court's reasoning that it was highly unlikely that the plaintiff was totally oblivious to what was going on, considering the small size of the class and the activity it was engaged in. Said the judge:

> It appears that the rest of the students knew what was going on and the jury could infer from their testimony that Wentz also knew and was cognizant of the dangerousness of his voluntary exposure to the known danger by continuing to sit at his desk under the circumstances.[59]

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[59] Ibid., p. 105.

An interesting interpretation of the doctrine of volenti non fit injuria (assumption of risk) which was considered in Wentz is provided by the case of Jay v. Walla Walla College.[60] In Jay action was taken by a chemistry student against the college for injuries sustained in a chemical explosion while he was attempting to extinguish a fire. The third-year chemistry student was conducting an authorized experiment in the analytical chemistry laboratory in the basement of the chemistry building when he heard the sound of a small explosion in the organic laboratory across the hall. Upon entering the lab he saw two other students attempting to put out the flames with a fire extinguisher. The student then picked up an extinguisher lying on the floor in the hall, re-entered the lab and attempted to use it on the fire. The device was empty. While the plaintiff was attempting to use the empty extinguisher a violent explosion of ethyl ether and other flammable gases occurred directly in front of him. The retina of his eye was punctured by flying glass.

In his complaint, plaintiff alleged that the college was negligent in failing to provide adequate supervision in that the instructor was not present at the time of the explosion. The complaint also charged the college with negligence in failing to provide and maintain properly

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[60] Jay v. Walla Walla College, 335 P. 2d 458 (Wash. 1959).

serviced fire extinguishers. The defendants denied liability and affirmatively pleaded as a defense, contributory negligence and the doctrine of volenti non fit injuria.

Evidence concerning the adequacy of supervision for such an experiment was conflicting. Evidence with respect to the adequacy of fire-fighting equipment was that the organic laboratory had one carbon dioxide extinguisher which had been expended in two earlier fires. There were five extinguishers in the basement, but none had been recently maintained or inspected. According to testimony, chemical fires were a frequent occurrence.

The court reasoned that these facts established a prima facie case of negligence against the college in failing to provide adequate fire-fighting equipment. The court in rejecting the defense of assumption of risk said that the plaintiff's relationship to the college was like that of a business visitor or invitee and that the record showed no evidence of a contractual relationship to sustain the defense. The appellant had contended that the respondent both knew and appreciated the danger of his acts.

Generally when a person voluntarily assents to a known danger he must abide the consequences, but a party is excused from the applicability of the rule if an emergency is found to exist or if the life or property of another individual is in peril. The appellate court affirmed the

lower court's ruling in finding the college negligent and liable for damages in the amount of $27,303.

Doctrine of Respondeat Superior

In Simmons v. Beauregard Parish School Board negligence on part of the School Board via the doctrine of respondeat superior was found by reason of lack of supervision over a science teacher who allowed a thirteen-year-old student to build and demonstrate a model volcano employing firecracker powder.[61] The volcano was constructed at the plaintiff's home for participation in a School Display Day Program. The model was made by molding a mixture of clay and mud around a large bottle. A small metal can was lowered into the mouth of the jar to the bottom and served as a container for powder which was to be ignited, creating an eruptive effect. The powder for the project was obtained from firecrackers purchased by the plaintiff's father and then torn apart. Shortly after the Display Day the plaintiff picked up his volcano, as instructed, in order to bring his project home.

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[61]Simmons v. Beauregard Parish School Board, 315 So. 2d 883 (La. 1975); Additional defendants in the original litigation were the principal, assistant principal, two science teachers, and the liability insurer. In a later appeal judgment was also sought for the teacher who was on school bus duty at the time of the accident. The plaintiffs ultimately filed a motion to dismiss with prejudice their claims against the principal, assistant principal and the liability insurance company, but reserving their rights in the original judgment against the School Board. The motion to dismiss with prejudice was granted.

> While waiting for the school bus, Lesley was apparently encouraged by other students to demonstrate his volcano. Lesley in turn gave one or two demonstrations and while pouring powder for the second or third demonstration, an explosion occurred and the plaintiff was seriously injured. A spark apparently entered the small bottle containing the remainder of the powder, causing the explosion.[62]

The plaintiff's science teacher testified essentially that he made no suggestion for the projects, provided no guidelines, made no approval of the projects, required no student explanations to him concerning the projects, and never discussed or supervised any of the projects. The teacher indicated that it was his belief that a thirteen-year-old had a concept of what was or was not dangerous, and that a child of that age would not do anything to endanger himself. The teacher concluded that his responsibility ended at the classroom.

> Under the foregoing facts there was ample evidence for the jury to conclude that Mr. Bryant (teacher) was negligent in allowing Lesley (plaintiff), a thirteen-year-old student, to build and demonstrate a project without even determining exactly what substances were used or whether the project was dangerous to the student himself or others. The lack of supervision on part of this school board employee was negligence, resulting in serious injury to the child.[63] (parentheses added)

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[62] Simmons v. Beauregard, supra at 886; The main injury the plaintiff received was to his right hand. Three fingers and part of a fourth had to be amputated through corrective surgery. In addition, the plaintiff received numerous lacerations about the chest, abdomen, thighs, and head which resulted from the fragmentation of the glass bottle which he held in his hand.

[63] Ibid., p. 887.

The jury found the plaintiff free of contributory negligence, and that he had not assumed the risk. The plaintiff's father was also found to be free of contributory negligence for having supplied the powder for the model volcano. The plaintiff's father testified that his son had informed him that the simulated volcano project had been approved by his science teacher. Accordingly, the father obtained the firecrackers and oversaw their "hulling" to extract the powder. The father had instructed and warned his son to be careful with the project and had supervised several trial demonstrations. His testimony essentially concluded that with proper teacher supervision he had no reservations or misgivings about the project. The father had apparently assumed that his child would be adequately supervised at school just as he had been at home. As an extra precaution the father sent his son to school without matches.[64]

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[64]The School Board as part of its defense contended that the plaintiff was contributorily negligent because he had violated a school rule prohibiting crossing the street to buy items from a local store. It was argued that the plaintiff had violated the rule the afternoon of the accident to purchase matches for the schoolground demonstration, without which the accident would not have occurred. The court decided that the harm suffered by the plaintiff was not of the kind which the school rule was intended to prevent.

The jury concluded that the plaintiff did not fully realize and appreciate the risk involved. Supportive testimony revealed that the plaintiff was below average scholastically, and was basically a problem child.

> In addition, in holding he had not assumed the risk, the jury also evidently concluded he did not intentionally and voluntarily expose himself to obvious danger, within his capacity to understand.[65]

The dissenting judge in Simmons asked for a reversal of the entire judgment on the grounds that the plaintiff was contributorily negligent and had assumed the risk.

> In order to get the matches Lesley used to cause this accident, Lesley knowingly violated school rules . . . There was no reasonable basis for concluding that Lesley did not knowingly violate school rules, and this violation was a direct cause of plaintiff's injuries.[66]

The judge argued that the record showed that the plaintiff "grossly disregarded his own safety in face of known, understood, and perceived danger, and exposed himself to obvious danger within his capacity to understand."[67]

In closing remarks the dissenting judge said:

> Compensating Lesley (plaintiff) and his father for injuries caused by their own fault has undesirable consequences. The school children of Beauregard Parish are deprived of this substantial sum needed for their education. The record suggests that members of a teachers' organization have liability insurance coverage of $100,000 for a premium of 40¢ per year.

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[65] Simmons v. Beauregard, supra at 889.

[66] Ibid., p. 890.

[67] Ibid., p. 892.

> Such exposure as that here recognized will require a substantial raise in the premium rates. When this comes, teachers have no way to pass on the increase.[68] (parenthesis added)

Failure to Establish Safety Regulations and Procedures and to Properly Govern

Maxwell v. Santa Fe Public Schools is an unusual case where different verdicts were laid down.[69] The plaintiff and his father claimed that the plaintiff sustained damages[70] and that the proximate cause of them were based upon the following claimed acts of negligence:

1. The teacher was negligent in using a glass container not designed for use in the experiment, thus creating a hazard for the plaintiff and other students in the class.

2. The defendants, Santa Fe Public Schools, Board of Education, and members of the Board were negligent in failing to properly govern, supervise, and regulate the activities of officers, agents, and employees of the School District so as to avoid injury to the plaintiff.

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[68] Simmons v. Beauregard, supra at 892-893; The amount of the judgment was $104,000 as general damages for the injuries suffered and $1,104.05 for incurred medical bills.

[69] Maxwell v. Santa Fe Public Schools, 534 P. 2d 307 (N.M. 1975).

[70] Plaintiff's eye was severely injured when a flask used for a cloud formation experiment exploded. Students were not wearing eye-protective devices at the time of the explosion--devices which were not even available in the public school system. Also, no pressure gauge was used.

The appellate court upheld the lower court's verdict in favor of the teacher but against the Santa Fe Public Schools, the Board of Education and members of the Board. The Board of Education and the city public schools were found to be negligent in failing to establish regulations to assure that proper equipment was available for such experiments.

The appellants candidly admitted that there was evidence to support a finding of negligence in failing to use a pressure gauge in this type of experiment. It should be pointed out that the verdict against the appellants did not depend on the theory of respondeat superior. The issues between the plaintiff and teacher and between the plaintiff and appellants were different. Although the standard of care for the defendants, Board of Education and city public schools, and defendant teacher were the same, the acts performed by each of them were different.

Summary of Cases Held for the Plaintiff

In cases decided in favor of the plaintiffs the grounds for suit included: (1) failure to exercise due care and take proper precautions, (2) failure to warn of danger, (3) negligence in instruction and supervision, (4) negligence in duty, generally, (5) failure to provide safe materials, (6) failure to establish safety regulations and procedures, and (7) failure to properly govern. Holdings for the

plaintiffs were based upon the following reasons: (1) the doctrine of res ipsa loquitur was held applicable, (2) failure to use reasonable care, (3) failure to properly instruct, (4) improper instructions to the jury (error in law), (5) failure to warn of danger, (6) negligence via the doctrine of respondeat superior, (7) failure to establish safety regulations and procedures, and (8) failure to properly govern. Defendants in the cases included: (1) school districts, (2) boards of education, (3) liability insurers, (4) teachers, (5) principals and (6) superintendents. The correspondence between the defendants, grounds for suit and court reasoning for the cases can be found in Table 5.

SUMMARY

The most often cited grounds for suit reported in the cases of this study was negligence in instruction and supervision. Contributory negligence and assumption of risk were the defenses most successfully used by school districts and school district personnel. Failure to use reasonable care was the most frequently cited reason given in finding for the plaintiffs.

Table 5

Summary of Cases Decided in Favor of Plaintiffs

1. Case: Damgaard v. Oakland H.S. District, 1931, Cal.
   Defendant(s): School District, Board of Education
   Grounds for Suit: Failure to exercise due care and take proper precautions; failure to warn of danger; negligence in duty
   Reasoning: Doctrine of res ipsa loquitur held applicable

2. Case: Mastrangelo v. West Side Union H.S. District, 1934, Cal.
   Defendant(s): School District, Board of Trustees
   Grounds for Suit: Failure to exercise due care and take proper precautions; failure to warn of danger; negligence in instruction and supervision
   Reasoning: Failure to use reasonable care; failure to properly instruct and supervise

3. Case: Reagh v. San Francisco Unified School District, 1953, Cal.
   Defendant(s): School District
   Grounds for Suit: Negligence in instruction and supervision
   Reasoning: Failure to use reasonable care; improper instructions to jury (error in law)

4. Case: Station v. Travelers Insurance Co., 1974, La.
   Defendant(s): School Board, Liability Insurer, Teacher
   Grounds for Suit: Failure to warn of danger; negligence in instruction and supervision
   Reasoning: Failure to use reasonable care; failure to properly instruct and supervise; failure to warn of danger

5. Case: Wentz v. Deseth, 1974, N.D.
   Defendant(s): Teacher
   Grounds for Suit: Failure to exercise due care and take proper precautions; failure to warn of danger; negligence in instruction and supervision
   Reasoning: Improper instructions to jury (error in law)

6. Case: Simmons v. Beauregard Parish School Board, 1975, La.
   Defendant(s): School Board
   Grounds for Suit: Negligence in instruction and supervision
   Reasoning: Negligence via doctrine of respondeat superior

7. Case: Maxwell v. Santa Fe Public Schools
   Defendant(s): School District, Board of Education
   Grounds for Suit: Failure to provide safe materials; failure to establish safety regulations and procedures; failure to properly govern
   Reasoning: Failure to establish safety regulations and procedures; failure to properly govern

Chapter 5

FINDINGS, SUMMARY, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDY

The format for this chapter was determined in part by the three major questions presented by the problem of this study as stated in Chapter 1. These three questions were:

1. What was the liability of science teachers and school districts for pupil injuries or deaths resulting from student involvement in science or science-related instructional activities?

2. What reasoning and principles of law have the courts used in finding science teachers and school districts liable or non-liable for pupil injuries or deaths?

3. What trends and patterns of court decisions can be recognized, and what implications do these have for public schools and science teachers?

The chapter has been divided into four sections. Section one deals with answering the three questions posed by the problem of this study as stated above. Section two gives a summary of the primary cases of this study with respect to grounds for suit, holdings of the court and court reasoning. Section three provides recommendations and section four gives suggestions for further study.

FINDINGS

The relationship and involvement of a teacher and school district in a tort claim is dependent on the laws in effect in the state or the absence thereof. In accord with this and on the basis of the appellate court decisions presented in this study, the following conclusions may be justified with respect to the tort liability of school districts, of school officers, of agents and employees, as it relates to student injuries sustained in science or science-related school activities.

Liability of School Districts and Boards of Education

1. School districts, school boards or other authorities in charge of public schools may be liable for personal injuries to pupils resulting from negligence in failing to supervise, or to properly supervise, the conduct or activities of pupils under their control.

2. By virtue of some state statutes or court decisions affecting the rule of governmental immunity, a school district may be held liable for its own negligence or that of its officers.

3. A school district may be held liable if it fails to exercise ordinary prudence in keeping dangerous instrumentalities from pupils and if it fails in preventing them from being used by pupils except under close supervision.

4. A board of education may be liable if it fails to use reasonable care in the keeping and distribution of materials which are potentially dangerous by themselves or in combination.

5. A board of education may be held liable under the doctrine of respondeat superior if it hires unsuitable teachers, but in many instances the doctrine does not apply to the "servant" of one who is acting only as a representative unless the employer actively participates in a negligent act or approves of it.

6. A board of education may be liable if it fails to properly govern, supervise, and regulate the activities of officers, agents, and employees of the school district.

7. A board of education may be liable if it fails to provide proper and safe instrumentalities.

Liability of Science Teachers

1. Science teachers may be held liable if they fail to explain basic procedures or fail to warn students of inherent risks involved in certain activities.

2. Science teachers who require students to do acts which might jeopardize their safety, or assign tasks to pupils not directly associated with the regular course of study, may be liable.

3. Science teachers may be liable even if an independent third act results in direct injury to the plaintiff

if it can be shown that in the ordinary and natural course of events, they should have known the intervening act was likely to happen.

4. Science teachers may be liable if it can be shown that injury to the plaintiff would not have occurred in the absence of the teachers' negligence.

5. Science teachers may be liable for negligence in failing to exercise reasonable care in providing and labeling of dangerous materials.

6. Science teachers may be liable if they improperly instruct and supervise the selection, compounding, and handling of ingredients used in certain experiments.

7. Science teachers may be liable if they limit their instructions regarding dangerous experiments to the handing out of textbooks containing directions only.

8. Laboratory instructors may be liable if they leave the laboratory while potentially dangerous activities are being performed or likely to be performed while they are out.

9. Science teachers may be liable if they allow students to perform activities in the absence of safe and proper equipment.

10. Science teachers may be liable if they fail to insist that students use the proper safeguards, as in the wearing of safety goggles when warranted.

Reasoning and Principles of Law Employed

Non-Liability. The following doctrines were used in the cases reported in this study as successful defenses against student charges of negligence: (1) contributory negligence, (2) assumption of risk, (3) intervening cause, and (4) governmental immunity. Defendants in the cases included (1) boards of education, (2) teachers, (3) school districts, and (4) students. Grounds for suit in the cases included (1) failure to exercise due care and take proper precautions, (2) negligence in duty, (3) negligence in instruction and supervision, (4) negligent actions, generally, and (5) misfeasant conduct.

Liability. The courts used the following reasoning and principles of law in the cases reported in this study in finding for the plaintiffs: (1) doctrine of res ipsa loquitur held applicable, (2) failure to use reasonable care, (3) failure to properly instruct, (4) error in law, (5) failure to warn of danger, (6) negligence via the doctrine of respondeat superior, (7) failure to establish safety regulations and procedures, and (8) failure to properly govern. The defendants in the cases included (1) school districts, (2) boards of education, (3) liability insurers, (4) teachers, (5) principals, (6) assistant principals, and (7) superintendents.

Trends and Patterns of Court Decisions

Determining the trends and patterns of the court decisions of this study with relatively few cases to draw upon was a difficult task and therefore was not as clearcut as one might desire. In addition to the actual cases, background research material was also utilized. In view of this and based on the available data, several trends and patterns were suggested.

1. Relatively little case law at the appellate level was found on the subject of science teacher and school district liability for pupil injuries or deaths.

2. School-related litigation has been increasing since the mid 1950's.

3. The abrogation of the sovereign immunity doctrine in some states has increased school-related tort litigation.

4. Courts appear to be granting larger awards for damages.

5. The doctrine of respondeat superior has been invoked in one instance.

6. Negligence in instruction and supervision has been the most-often-cited grounds for suit.

7. The most successfully used defense employed by school districts has been contributory negligence.

8. The doctrine of reasonable care has been the most-often-cited reason given in finding for the plaintiffs.

Implications of Trends and Patterns

Relatively little case law at the appellate level was found on the subject of science teacher and school district liability for pupil injuries or deaths. The paucity of cases reported in this study does not necessarily mean that there were not other science accidents or additional lower court litigation. Many situations never get to court, others are settled out of court and some never reach the appellate level. In the State of Virginia, for instance, thousands of dollars have been paid from the liability insurer on behalf of the Virginia Education Association and additional thousands of dollars are currently in reserve for claims and suits which have not been settled. For example, a teacher in Virginia was amazed to be charged with negligence a week after acid had badly scarred the leg and ankle of his "best" student. The student had knocked a container of acid off a shelf which her parents thought should not have been placed on the laboratory table. Although the teacher felt he was innocent, it cost $2,084 to prove it.[1]

School-related litigation has been increasing since the mid 1950's. The majority of the school tort liability cases

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[1]Virginia Education Association. "Educators Professional Claims." Richmond: VEA, September 1970 to December 1972 (mimeographed).

reported by this study were litigated since 1962. This fact supports the position stated in Chapter 1 which indicated that school-related litigation has been increasing since the mid 1950's. The availability of liability insurance, the abrogation of the sovereign immunity doctrine in some states and "save harmless" statutes have contributed to this trend. The implications here are obvious. School districts and public school personnel are now more answerable to the courts than ever before and must adjust institutional conduct accordingly.

With more litigation comes increasing liability implications. The National Science Teachers Association (NSTA), for example, takes the position that the liability of teachers for laboratory safety and field trips is a critical issue confronting the science teaching profession.[2]

The NSTA maintains that teacher liability has created obstacles which tend to inhibit and prevent many in the profession from utilizing such important components of science instruction as student experimentation and participation in field trips. The NSTA supports statutory protection against personal liability for injuries to pupils.

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[2]N.S.T.A. Committee on Issues. "NSTA Positions on Critical Issues Confronting the Science Teaching Profession." Science Teacher, Volume 37, No. 1 (January, 1970), pp. 31-34.

The abrogation of the sovereign immunity doctrine in some states has increased school-related tort litigation. Some states have waived their sovereign immunity, but only a few have statutes that provide for direct relief against a school district for damages incurred by their boards, officers, agents and employees. Where sovereign immunity has been abrogated and state statutes exist, tort litigation does appear more frequently. California and New York, for example, do not recognize immunity for acts of school boards, but extend such immunity to the acts of the board's agents and employees and incorporate indemnifications against loss to their agents and employees, including teachers through "save harmless" provisions. It should be pointed out that six of the sixteen primary tort liability cases reported in this study were litigated in the states of California and New York, states which have abrogated sovereign immunity.

Courts appear to be granting larger awards for damages. In Damgaard (1931) a youth was awarded $15,000 for the loss of an eye in a laboratory explosion,[3] while in Simmons (1975) the plaintiff was awarded more than $104,000 for the

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[3]Damgaard v. Oakland High School District, supra.

loss of three fingers when a model volcano exploded.[4] These data suggest the present inflationary nature of court awards. Such legal action obviously can result in crippling costs to school districts and the "exposure" can be quite embarrassing to school divisions. In addition, school districts can lose money when students are absent because of injury if a state funding formula depends, in part, on average daily attendance.

The doctrine of respondeat superior has been invoked in one instance. In Simmons a school board was found liable via the doctrine of respondeat superior because it was judged to be lacking in supervision of a science teacher.[5] This is an interesting case in that the doctrine has generally not been invoked in education because the sovereign immunity rule has tended to prohibit this major contributor from satisfying judgments awarded to plaintiffs. Whether or not this case represents a trend is difficult to answer with just one pertinent case to consider; however, the fact remains that school boards must exercise

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[4]Simmons v. Beauregard Parish School Board, supra.

[5]Simmons v. Beauregard Parish School Board, supra.

extreme care in hiring suitable teachers and must provide proper and adequate supervision over them.

Negligence in instruction and supervision has been the most-often-cited grounds for suit. The most-often-cited grounds for suit in the cases reported in this study was negligence in instruction and supervision. The implication here is clear: teachers have a duty to properly instruct and supervise the pupils under their control. When teachers do not explain basic classroom procedures or fail to warn students of inherent risks involved in certain activities they may be liable in a tort action. The instructor who leaves the classroom unattended or in the hands of an inexperienced pupil or aide risks suit. The instructor who is present but improperly instructs or supervises students also risks suit.

The most successfully used defense employed by school districts has been contributory negligence. In recent years the defense of contributory negligence has been employed with success by school districts and school personnel. Contributory negligence on the part of a student may free the teacher of liability. The court takes into account the age and maturity of the injured student, but if the student is a minor, contributory negligence is more difficult to prove.

In a limited number of states the doctrine of comparative negligence, a modification of the contributory negligence rule, has become the law. This doctrine is based upon the assumption that the cause of an accident may be due to the negligence of both the student and teacher. The application of the doctrine allows for a variation in the degree of negligence of the parties involved and thereby permits the prorating of damages according to the degree of guilt. Apparently, the application of the doctrine of comparative negligence is an attempt to offset the dissatisfaction with the strict rule of contributory negligence.

The doctrine of reasonable care has been the most-often-cited reason given in finding for the plaintiffs. In governing and controlling pupils, teachers must act so as not to negligently injure them. The doctrine of "reasonable care" may take one of two forms. A teacher must not do anything that a reasonable person would recognize as being dangerous or potentially hazardous to students. On the other hand, a teacher should not fail to take action that would be required in order to protect the safety and well-being of his students. The performance of an act that puts pupils in danger or the failure of a teacher to take action to protect students from harm may establish negligence.

The standard of care required of a teacher or other public school employee should be that which a person of ordinary prudence charged with his duties would exercise under the same or similar circumstances. It should be pointed out that the standard of care required of teachers varies with the age of the children and the nature of the activities involved.

SUMMARY

A summary of the primary cases reported in this study with respect to grounds for suit, holdings of the court and court reasoning is given in Table 6. The grounds for suit are keyed by letter and the reasons for the courts' decisions are keyed by number. The letter and number keys for Table 6 are indicated below and on page 95.

Grounds for Suit

a. Failure to exercise due care and take proper precautions.

b. Failure to warn of danger.

c. Negligence in instruction and supervision.

d. Negligence in duty.

e. Negligent actions, generally.

f. Misfeasant conduct.

g. Failure to provide safe materials.

Table 6

Summary of Cases

Case	Citation No.	Year	State	Grounds	Holding	Reasons
Gregory	225 N.Y.S. 679	1927	N.Y.	a	Defendant	8
Damgaard	298 P. 983	1931	Cal.	a, b, d	Plaintiff	1
Mastrangelo	42 P. 2d 634	1934	Cal.	a, b, c	Plaintiff	2,3
Gaincott	275 N.W. 229	1937	Mich.	d	Defendant	4
Frace	137 P. 2d 60	1943	Cal.	c	Defendant	5,15
Reagh	259 P. 2d 43	1953	Cal.	c	Plaintiff	2,6
Engel	177 A. 2d 595	1962	N.J.	c	Defendant	7
Wilhelm	227 N.Y.S. 2d 791	1962	N.Y.	c	Defendant	4,8
McBride	125 S.E. 2d 393	1962	N.C.	c, e	Defendant	8,9
Kaske	222 N.E. 2d 921	1966	Ill.	c, e	Defendant	10
Hutchinson	476 P. 2d 811	1970	Ore.	d	Defendant	8
Desmarais	276 N.E. 2d 691	1971	Mass.	c, d, f	Defendant	11,17
Station	292 So. 2d 289	1974	La.	b, c	Plaintiff	2,3,16
Wentz	221 N.W. 2d 101	1974	N.D.	a, b, c	Plaintiff	6
Simmons	315 So. 2d 883	1975	La.	c	Plaintiff	12
Maxwell	534 P. 2d 307	1975	N.M.	g, h, i	Plaintiff	13,14

Each case has been listed by citation number. The following additional information has been given: (1) year case was tried, (2) state in which case was tried, (3) grounds for the suit, (4) court holding, and (5) reasons for holding. The grounds for the suit have been keyed by letter to descriptions of the situation which brought about the suit. The reasons for the courts' holdings are keyed by number to a description of the reasons.

h. Failure to establish safety requlations and procedures.

i. Failure to properly govern.

Reasons for Holdings

1. Doctrine of res ipsa loquitur held applicable.

2. Failure to use reasonable care.

3. Failure to properly instruct and supervise.

4. No actionable negligence.

5. Intervening cause.

6. Improper instructions to jury (error in law).

7. Boards of education entitled to greater consideration than private litigants in determining proper venue.

8. Contributory negligence--assumption of risk.

9. Lack of jurisdiction.

10. Lower court's verdict in accord with evidence.

11. Not guilty of misfeasance.

12. Negligence via doctrine of respondeat superior.

13. Failure to establish safety regulations and procedures.

14. Failure to properly govern.

15. Not foreseeable.

16. Failure to warn.

17. Governmental immunity.

RECOMMENDATIONS

General Concerns

Although most of the injuries reported in this study resulted from chemical explosions and burns, one should not be led to believe that other areas of the science curriculum are "accident free." Although burns and cuts cause most of the injuries to students involved in science activities, injuries from animal bites, poisonous gases or liquids, electrical shock, and mechanical equipment do occur as well.

Accidents are most likely to happen when the capable, curious student is allowed to use his own initiative while the teacher supervises other students. Large laboratory sections and the availability of a few substances that may not be essential provide the scenario.

The need for comprehensive science safety programs at all levels of public instruction is supported by a belief that many science teachers are unsure of themselves relative to classroom and laboratory safety and are uncertain of liability implications. Additionally, many science teachers finish their college courses with only a vague idea about the dangers involved in certain science activities. These factors tend to discourage and inhibit some science teachers from engaging in perfectly legitimate and worthwhile science activities with students. Obstacles which tend to prevent teachers from utilizing such important components of science

instruction as exploratory or experimental work or participation in field trips by students should be removed.

Caution should be exercised by school divisions before implementing programs in which teachers are ill-prepared to instruct or supervise. The "band-wagon" approach has thrust many science teachers into teaching situations where they were less than qualified. For example, the popularity of rocket experiments during the 1960's caused a number of accidents and injuries to students who were not properly instructed, properly supervised or adequately warned of the dangerous consequences.[6] It should be pointed out that a teacher's liability does not necessarily end at the classroom. For instance, in Engel v. Gosper,[7] a science teacher became a defendant two years after she had instructed the student who was subsequently injuried and ultimately brought suit. Of further note is the fact that in four of the sixteen primary cases reported in the study, the student accident occurred at home. In situations where the science teacher has reasons to believe that students may "explore" on their own, the teacher should make sure that any necessary risks are brought to the attention of both the student and his parents in advance.

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[6]In Engel v. Gosper, supra, a student was killed as a result of a rocket experiment performed at home.

[7]Engel v. Gosper, supra.

Finally, attention should be given to the fact that a science teacher who remains in the classroom while experiments or other similar activities are going on, who properly instructs pupils in the use of dangerous instrumentalities, who maintains a continuous safety education program, and who has a legitimate educational purpose, should have little fear of liability.

Specific Concerns

Since most of the student injuries in the cases reported in this study resulted from chemistry or chemistry-related accidents, the following recommendations are aimed at preventing such accidents and possibly avoiding litigation.

Basic instruction, experiments and special activities.

1. Formally prescribed courses of study should be adopted by school boards or school divisions.

2. Only authorized experiments or activities should be permitted in the school.[8]

3. Activities requested or directed to be performed by students should be a part of, or a direct result of, legitimate school activities.

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[8]Appendix A gives the nature of the student activity and the instrumentality involved at the time of the pupil's accident as reported in the cases of this study.

4. Teachers and curriculum planners should attempt to provide alternative exercises which illustrate the same principles embodied in dangerous laboratory experiments.

5. Assumptions by teachers of student understandings and knowledge regarding course content, basic procedures and techniques are insufficient.

6. Students should be made fully aware of potential hazards and have adequate knowledge and understanding of them. Basic procedures should be explained, demonstrations made, and students warned of any risks involved.

7. Chemistry courses should include more practical work so that students will "know" their chemicals. For example, students should be aware of the potential danger of using incompatible chemicals, materials which are explosive, flammable liquids, combustible substances and dangerously corrosive chemicals.

8. Teachers requiring projects or other special science activities should provide guidelines, approval procedures and close supervision.

9. Teachers should exercise prudent judgment in introducing activities which could possibly be performed by students at home and should encourage adult supervision and guidance in such exploration.

10. All new curricular innovations should be examined by members of the science teaching profession for possible hazards and any unknown or unfamiliar reactions should be checked and "cleared" with authorities.

11. Overcrowded classes should be avoided, and "horsing around" by students in labs prohibited.

12. No students should be allowed in the laboratory when the instructor is not present.

13. A test of "foreseeability" should be made by the teacher, who must perform experiments before allowing students to do so.

14. Micro-experiments utilizing small quantities of chemicals should be encouraged, eliminating the possibility of larger, uncontrolled reactions.

15. Experiments involving potentially dangerous reactions should be conducted behind safety shields.

16. Laboratory instructors should not leave the laboratory when experiments are in progress, or should at least provide adult supervision if their absence is necessary.

Chemicals, materials and equipment.

1. Proper instruction and supervision should be exercised in the selection, compounding, and handling of chemicals.

2. Reasonable care should be exercised in keeping and distributing chemicals which are potentially dangerous by themselves or in combination.

3. Chemical storage areas should be kept locked when unattended. "Open-shelves" for chemicals should be eliminated.

4. Chemical storerooms should stock only a one-year supply to satisfy course requirements and student demands. Quantities should be adequate but small. Overaged and dangerous chemicals should be discarded.

5. School boards should establish regulations to assure that proper and safe equipment is available and maintained in the science program.

6. Dangerous or defective instrumentalities should not be used in any school science program.

7. Safety glasses should be required at all grade levels where demonstrations by teachers or experiments by students require goggles for protection. Some junior high school programs necessitate eye protection for certain experiments, and the use of goggles in the chemistry laboratory is mandatory.

Safety rules, regulations and procedures.

1. Safety rules need to be posted, periodic safety instruction should be scheduled as part of the regular course

syllabus, and specific warnings must be made in special or unusual situations.

2. Emergency procedures should be established and periodically practiced by both teachers and students.

3. Because minor injuries may be an indication of hazards which can cause more serious injuries, efforts should be made to determine what injuries are occurring and to find out what the causes are so that similar accidents can be prevented. This procedure is essential in any well-functioning program of accident prevention.

Regulations, liability insurance and legislation.

1. Teachers should know the state statutes, rules and regulations which relate to classroom or laboratory safety.

2. Science teachers should encourage local school boards to purchase liability insurance to protect themselves, the administration, and their teachers.

3. Teacher organizations in states which have not enacted "save harmless" laws should lobby for their passage by state legislatures.

SUGGESTIONS FOR FURTHER STUDY

In order to substantiate the true picture of the dangerous nature of many science activities and to determine

the actual extent of science teacher and school district liability for pupil injuries or deaths resulting from student involvement in science or science-related instructional activities, the following suggestions for further study are submitted:

1. A study to determine the history and disposition of liability claims resulting from science injuries which are settled out of court. The records of various school liability insurers would provide base data.

2. A study of lower court records in various jurisdictions to determine the extent of science teacher and school district liability in cases that never reach the appellate level.

3. A study of various school districts to determine the nature and extent of science and science-related student accidents and injuries. School accident reports would provide the essential data.

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APPENDIX A

APPENDIX A

Student Activity and Instrumentality Involved At Time of Accident

Case	Year	State	Chemical/Instrumentality	Student Activity
Gregory	1927	N.Y.	Not specified	Performing unauthorized experiment
Damgaard	1931	Cal.	Explosive gases	Watching teacher demonstration
Mastrangelo	1934	Cal.	$KClO_3$, C,S	Performing experiment
Gaincott	1937	Mich.	Glass milk bottle	Following teacher's directions
Frace	1943	Cal.	$KClO_3$, Phosphorus	Experimenting with chemicals at home
Reagh	1953	Cal.	$KClO_3$, sugar, phos.	Walking from chemistry lab
Engel	1962	N.J.	Fueled rocket	Performing a rocket experiment/home
Wilhelm	1962	N.Y.	Not specified	"Horsing around" with chemicals
McBride	1962	N.C.	Sodium peroxide	Engaged in play at home
Kaske	1966	Ill.	Not specified	Standing by table watching experiment
Hutchinson	1970	Ore.	$KClO_3$, sugar	Attempting to shoot-off home-made cannon
Desmarais	1971	Mass.	Not specified	Performing required experiment
Station	1974	La.	Alcohol	Standing by science fair project
Wentz	1974	N.D.	After-shave lotion	Seated at desk talking with student
Simmons	1975	La.	KNO_3, S,C	Demonstrating model volcano
Maxwell	1975	N.M.	Glass flask	Performing required experiment

Key to symbols: $KClO_3$ = potassium chlorate; KNO_3 = potassium nitrate; C = carbon (charcoal); S = sulfur

APPENDIX B

APPENDIX B

Summary of Holdings for Defendants

Case	Defendants	Holding
Gregory	Board of Education	Defendant
Damgaard	School District and Board of Education	Plaintiff
Mastrangelo	School District and Board of Trustees	Plaintiff
Gaincott	Teacher	Defendant
Frace	School District et al	Defendant
Reagh	School District	Plaintiff
Engel	Board of Education, Teachers, Students	Defendant
Wilhelm	Board of Education, City	Defendant
McBride	State Board of Education, Board of Education	Defendant
Kaske	Board of Education	Defendant
Hutchinson	School District, Teacher	Defendant
Desmarais	School District, Teacher	Defendant
Station	School Board, Liability Insurer, Teacher	Plaintiff
Wentz	Teacher	Plaintiff
Simmons	School Board[1]	Plaintiff
Maxwell	School District, Board of Education[2]	Plaintiff

[1]Additional defendants in the original litigation were the principal, assistant principal, two science teachers, and the liability insurer.

[2]Other defendants in the original litigation were a teacher and the superintendent.

APPENDIX C

APPENDIX C

CASE DATA COLLECTION: AMERICAN DIGEST SYSTEM

VOLUME _____

YEAR _____

CITATION _____

_____

_____

KEY NUMBER(s) _____

TORT _____

NATURE OF STUDENT INJURY _____

_____

_____

_____

_____

SHEPARDS CITATIONS:

APPENDIX D

APPENDIX D

CASE SUMMARY FORM

1. Volume _____ Year _____ Reporter _____ Page ____
2. Citation _____

_____

3. Date of Case: Year _____ Month _____ Day _____
4. State _____ 5. Age of Student _____
6. Sex of Student _____ 7. Grade of Student _____
8. Suit was brought by: Parent _____ Child _____
9. Suit was tried in _____ court

and _____ court

10. Nature of pupil injury _____

_____

11. Specific tort(s) _____
12. Holding was for: Defendant _____ Plaintiff _____

Neither _____ Both _____

13. Reasons given for above holding _____

_____

14. Points of special significance _____

_____

15. Related or precedent cases _____

_____

16. Brief summary of case (use back):

(modified after Dwyer, 1966)

APPENDIX E

APPENDIX E

ACCIDENT REPORTING FORM

Name of injured _____

Home address _____

School name _____

Age of injured _____ Sex (Male) (Female) Grade or ID No. _

Time of accident _____ (a.m.) (p.m.) Date _____

Exact location of accident _____

Accident Description (specifically how accident occurred, who was involved, what instrumentalities were involved, where student was, what he was doing, etc. _____

_____

_____

Instructor's recommendations _____

_____

Part of Body Injured: Abdomen __ Ankle __ Back __ Chest __ Ear __ Elbow __ Eye __ Face __ Finger __ Foot __ Head __ Hand __ Knee __ Leg __ Mouth __ Nose __ Scalp __ Tooth __ Wrist __ Other (specify) _____

Nature of Injury: Surface cut __ Deep cut or wound __ Bruise __ Burn __ Concussion __ Dislocation __ Broken Bone or Fracture __ Poisoning __ Scalding __ Scratch __ Shock (elec.) __ Sprain __ Amputation __ Asphyxiztion __ Other (specify) __

_____

Degree of Injury: Death __ Permanent Impairment __ Temporary Disability __ Not Disabling __

Number of days missed from school _____

Was the teacher present at the time of the accident?
yes ___ no ___

Name of teacher in-charge _____

Give the exact nature of treatment given while on school property _____
(first aid? sent home? sent to physician? taken to hospital?)

Name of person taking action on injured's behalf _____

Was the injured's parent or guardian notified?
yes ___ no ___ by whom? _____

Names of at least two witnesses to the accident and addresses
_____
_____

Signed (principal) _____

Signed (instructor) _____

(modified after standard form of the National Safety Council)

APPENDIX F

APPENDIX F

STUDENT ACCIDENT REPORT FORM

1. Name _____ Home Address _____
2. School _____ Sex _____ Age ____ Grade _____
3. Time accident occurred: Hour _____ A.M. _____ P.M. __

   Date _____
4. Place of Accident: School Building ____ School Grounds

   ____ To or from School ____ Home ____ Elsewhere _____
5. Nature of Injury _____

   _____

   _____
6. Degree of Injury: Nondisabling ___ Temporary Disability

   _____ Permanent Impairment _____ Death _____
7. Total number of days lost from school _____

   (to be filled when student returns to school)
8. Teacher in charge when accident occurred (enter name)

   _____

   Present at scene of accident: No _____ Yes _____
9. Immediate Action Taken:

   First-aid treatment ____ By (Name) _____

   Sent to school nurse ____ By (Name) _____

   Sent home ____ By (Name) _____

   Sent to physician ____ By (Name) _____

   Physician's Name _____

Sent to hospital ____ By (Name) _____

Name of hospital _____

10. Was a parent or other individual notified: No _____

Yes _____ When? _____ How? _____

Name of individual notified _____

By whom? (enter name) _____

11. Witnesses: 1. Name _____ Address _____

2. Name _____ Address _____

12. Location:

Athletic field	_____	Locker	_____
Auditorium	_____	Pool	_____
Cafeteria	_____	Sch. grounds	_____
Classroom	_____	Shop	_____
Corridor	_____	Showers	_____
Dressing room	_____	Stairs	_____
Gymnasium	_____	Toilets & washrms.	_____
Home Econ.	_____	Other (specify)	_____
Laboratories	_____		

What recommendations do you have for preventing other accidents of this type?

Signed: Principal _____ Nurse _____

Insurance _____

Date Sheet No. _____ (to be sent in triplicate)

School Policy No. _____ Date Insured _____

(Source: Norfolk Public Schools, Norfolk, Virginia)

APPENDIX G

APPENDIX G

CURRENT STATUS OF SOVEREIGN IMMUNITY DOCTRINE[1]

School districts in the following states are immuned for both governmental and proprietary activities.

Arkansas
Indiana
Kentucky
Louisiana
Maryland
Mississippi
Missouri
New Hampshire
New Jersey
North Carolina
New Mexico
Ohio
Oklahoma
Rhode Island
South Carolina
South Dakota
Texas
Wyoming

Immunity is maintained by court decision in the following states.

Indiana
Kentucky
Louisiana
Maryland
Missouri
New Hampshire
New Mexico
Rhode Island
South Carolina
South Dakota
Texas

School districts in the following states are immuned for governmental activities only.

Alabama
Colorado
Connecticut
Georgia
Kansas
Massachusetts
Michigan
Nebraska
Tennessee
Vermont
Virginia
West Virginia

This immunity is maintained by court decision in the following states.

Colorado
Indiana
Kansas
Kentucky
Louisiana
Maine
Missouri
Nebraska
South Carolina
South Dakota
Vermont
Virginia

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[1]Association of School Business Officials of the U.S. and Canada. Workshop sponsored by the Educational Div. of Kemper Ins. Co., Boston, Mass., October 2-3, 1976.

Immunity exists for board members while acting as a board in the following states.

Alabama
Arkansas
Colorado
Delaware
Idaho
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Mississippi
Missouri
Nebraska
North Carolina
Pennsylvania
Rhode Island
South Dakota
Tennessee
Vermont
Virginia
West Virginia
Wyoming

Immunity exists for individual board member acts in the following states.

Alabama
Arkansas
Delaware
Idaho
Maryland
Massachusetts
Missouri
Nebraska
Pennsylvania
Rhode Island
South Dakota
Tennessee
West Virginia

There is no immunity for board members acting as a board in the following states.

Arizona
Michigan
Minnesota
Montana
Nevada
New Hampshire
New York
Ohio
Oklahoma
Oregon
South Carolina
Texas
Utah
Washington
Wisconsin

No immunity for individual boardman acts in:

Colorado
Kansas
Kentucky
Louisiana
Maine
Michigan
Minnesota
Mississippi
Montana
Nevada
New Hampshire
New York
North Carolina
Ohio
Oklahoma
Oregon
South Carolina
Texas
Utah
Vermont
Virginia
Washington
Wisconsin
Wyoming

Employees are included in school immunity in the following states:

Alabama	Missouri
Arkansas	Nebraska
Delaware	Rhode Island
Idaho	West Virginia

In the following states the school districts must indemnify board members, all employees and student teachers for their legal liability arising out of or in the course of their employment or while acting at the direction of the board.

Arizona	Iowa
California	Massachusetts
Connecticut	New Jersey
Illinois	New York

School districts may provide insurance protection for legal liability of board members, all employees and student teachers in the following states:

Arizona	Iowa
California	Massachusetts
Connecticut	New Jersey
Illinois	New York

In the following states, school districts, although not obligated to indemnify, may provide this insurance:

Florida	North Carolina
Kansas	North Dakota
Minnesota	Oregon
Nevada	Pennsylvania
New Hampshire	Utah
New Mexico	

In Illinois, public elementary and secondary school districts are obligated to reimburse Board Members, all employees and student teachers for expenses as a result of suits based on alleged violations of civil or constitutional rights.

In Georgia and Ohio, districts may provide insurance to protect Board Members from suits alledging violations of civil or constitutional rights.

Pennsylvania abrogated immunity by Supreme Court August, 1973. North Dakota abrogated immunity by Supreme Court December, 1974. Florida abrogated immunity by Legislation Jan. 1, 1975.

APPENDIX H

Appendix H

Science Accidents by Source and Nature of Injury

Case	Year	State	Source of Injury	Nature of Injury
Gregory	1927	N.Y.	Explosion of Chemicals	Not Specified
Damgaard	1931	Cal.	Explosion of Chemicals	Loss of right eye, other disfig.
Mastrangelo	1934	Cal.	Explosion of Chemicals	Left hand blown off, right hand seriously damaged, loss of right eye
Gaincott	1937	Mich.	Broken Glass	Severe laceration to left wrist
Frace	1943	Cal.	Explosion of Chemicals	Not Specified
Reagh	1953	Cal.	Explosion of Chemicals	Loss of left hand
Engel	1962	N.J.	Explosion of Rocket	Death
Wilhelm	1962	N.Y.	Explosion of Chemicals	Not Specified
McBride	1962	N.C.	Explosion of Chemicals	Severe Burns
Kaske	1966	Ill.	Explosion of Chemicals	Severe Burns
Hutchinson	1970	Ore.	Explosion of Chemicals	Hands severely injured
Desmarais	1971	Mass.	Explosion of Chemicals	Loss of one eye
Station	1974	La.	Explosion of Chemicals	Severe Burns
Wentz	1975	N.D.	Chemical Flare-Up	Severe Burns
Simmons	1975	La.	Explosion of Chemicals	Loss of three fingers, disfigured hand
Maxwell	1975	N.M.	Exploding Glass	Serious eye injury

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GLOSSARY

GLOSSARY

1. Appellant. The party who takes an appeal from one court or jurisdiction to another.

2. Appellate Court. A court having jurisdiction of appeal and review.

3. Appellee. The party in a case against whom an appeal is taken. Sometimes called the "respondent."

4. Assumption of Risk. Where none of fault for injury rests with plaintiff, but where plaintiff assumes consequences of injuries occurring through fault of defendant, third person, or fault of no one.

5. Common Law. Judge-made or case law derived from customs and usages. American common law was adopted from English common law.

6. Comparative Negligence. That doctrine in the law of negligence by which the negligence of the parties is compared in the degrees of "slight," "ordinary" and "gross" negligence.

7. Contributory Negligence. The act or omission amounting to want of ordinary care on part of complaining party, which, concurring with defendant's negligence, is proximate cause of injury.

8. Damage. Compensation, either monetary or indemnity, which may be recovered by a person for injury or loss suffered as a result of defendant's wrongful conduct.

9. Defendant. The person defending or denying the party against whom relief or recovery is sought in an action or suit.

10. Foreseeability. To forsee danger in a situation to the extent that any "reasonably prudent" person would.

11. Imputed Negligence. Negligence which is not directly attributable to the person himself, but which is the negligence of a person who is in privity with him, and with whose fault he is chargeable.

12. In Loco Parentis. In the place of the parents; charged, factitiously, with a parent's rights, duties, and responsibilities.

13. Indemnity. An assurance by which one person engages to secure another against an anticipated loss. Restitution or reimbursement.

14. Instrumentality. The quality or state of being instrumental; that serving as an instrument or means.

15. Intentional Tort. An intentional act from which injury results to another.

16. Intervening Cause. An independent cause which intervenes between the original wrongful act or omission and the injury, turns aside the natural sequence of events and prodcues a result which would not otherwise have followed and which could not have been reasonably anticipated.

17. Invitee. One who is at a place upon the invitation of another.

18. Legal Fiction. In the usual sense, of an allegation or supposition of a state of facts assumed to exist which the practice of the courts allows to be made in pleading, and refuses to allow the adverse party to disprove.

19. Liability. The condition of being subject to an obligation or responsibility which is enforceable by a court.

20. Litigant. A party to a lawsuit; one engaged in a court of justice for the purpose of enforcing a right.

21. Ministerial Duty. A duty imposed by law and exercised without any discretion on the part of the performer.

22. Misfeasance. A misdeed or trespass. The improper performance of some act, which a man may lawfully do.

23. Negligence. Want of care. Failure to act as a reasonably prudent person would under the same or similar circumstances. It may consist of either an omission to act or an affirmative act.

24. Nonfeasance. The omission of an act which a person ought to do.

25. Nonsuit. Name of a judgment given against the plaintiff when unable to prove a case.

26. Plaintiff. The person who brings or initiates an action in law. One who invokes the aid of law. He who sues by filing a complaint.

27. Prima Facie. Evidence good and sufficient on its face; such evidence as, in the judgment of the law, is sufficient to establish a given fact, or the group or chain of facts constituting the party's claim or defense, and which if not rebutted or contradicted, will remain sufficient.

28. Proximate Cause. The act without which an injury would not have occurred. The legal cause. Act or omission immediately causing or failing to prevent injury, without which an injury would not have been inflicted.

29. Quasi-Corporation. Organizations resembling corporations; municipal societies or similar bodies which, though not true corporations in all respects, are yet recognized by statutes or common usages, as persons or aggregate corporations, with precise duties which may be enforced, and privileges which may be maintained by suits at law.

30. Res Ipsa Loquitur. "The thing speaks for itself." Rebuttable presumption that defendant was negligent, which arises upon proof that instrumentality causing injury was in defendant's exclusive control, and that the accident was one which ordinarily does not happen in absence of negligence.

31. Respondeat Superior. "Let the master answer." This maxim means that a master is liable in certain cases for the wrongful acts of his servant and a principal for those of his agent.

32. Respondent. In appellate practice. The party who contends against an appeal.

33. Save Harmless. In most states with "save harmless" statutes, if suit is filed against the employee and a judgment awarded against him for negligence committed within the course and scope of employment, the school district must "save harmless" the employee by paying the judgment.

34. Sovereign Immunity. In its pure form, completely absolves a governmental body from liability and prevents an injured party from recovering damages for negligence.

35. Standard of Care. Requires that a school district and its employees anticipate a wide range of dangerous acts and conditions that could expose a student to an unreasonable risk of harm.

36. Strict Liability. "Without fault," where the defendant is held liable in the absence of any intent which the law finds wrongful, or any negligence, very often for reasons of policy.

37. Tort. A civil wrong or injury to one party by another which does not arise out of breach of contract. Three elements of every tort action are: existence of a legal duty from defendant to plaintiff; breach of duty; and damage as a proximate result.

38. Venue. The geographical division in which an action or prosecution is brought for trial, and which is to furnish the panel for jurors.

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AN ANALYSIS OF COURT DECISIONS PERTAINING TO TORT LIABILITY FOR STUDENT INJURIES SUSTAINED IN SCIENCE ACTIVITIES IN PUBLIC SCHOOL SYSTEMS THROUGHOUT THE UNITED STATES

by

Harvey B. Barrett

(ABSTRACT)

Purpose of the Study

The purpose of this study was to investigate, analyze and classify court decisions as they related to the question of the legal liability of science teachers and school districts for injuries or deaths resulting from student involvement in laboratory, classroom or classroom-related science activities.

Research Methods and Sources of Data

An extensive search of all cases in point which have been decided by appellate court jurisdiction was made. The American Digest System provided a bibliography of cases and the entire opinions were read as they appeared in the National Reporter System. Other legal aides useful in the study were the American Law Reports, Corpus Juris Secundum, American Jurisprudence and Shepards' Citations. The primary cases were briefed and then identified according to principles,

issues and elements illustrated. The results were then studied and similar items grouped together. Other cases were cited in order to strengthen points or to clarify issues and principles of law.

Findings

The relationship and involvement of a science teacher and school district in a tort claim is dependent on the laws in effect in the state or the absence thereof. In accord with this and on the basis of the appellate court decisions presented in this study, the following conclusions may be justified with respect to the tort liability of school districts, of school officers, of agents and employees, as it relates to student injuries sustained in science or science-related school activities.

School Districts and Boards of Education

School districts or other authorities in charge of public schools may be liable for personal injuries to pupils resulting from negligence in failing to: (1) supervise or to properly supervise the conduct or activities of pupils under their control, (2) exercise ordinary prudence in keeping dangerous instrumentalities from pupils except under close supervision, (3) use reasonable care in keeping and distributing materials which are potentially dangerous in themselves or in combination, (4) hire suitable teachers, (5) properly govern, supervise and regulate the activities

of its personnel, (6) provide proper and safe instrumentalities.

Science Teachers

Science teachers may be held liable for their acts or failure to act under a variety of circumstances. Laboratory instructors are particularly vulnerable because of the potentially dangerous instrumentalities involved. Science teachers may be liable in tort if they: (1) fail to explain basic procedures, (2) fail to warn students of possible danger, (3) require students to perform acts which might jeopardize personal safety, (4) fail to reasonably foresee and anticipate events which might injure students, (5) fail to exercise reasonable care in providing and labeling dangerous materials, (6) improperly instruct and supervise the selection, compounding and handling of ingredients used in certain experiments, (7) limit instructions regarding dangerous experiments to the handing-out of textbooks only, (8) leave the classroom or laboratory while potentially dangerous activities are being performed, (9) allow students to perform activities in the absence of safe and proper equipment, (10) fail to insist that students use the proper safeguards.