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Executive Development

Keeping Kids Safe:

Is Preschool Fire Safety Education Effective?

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November 2004

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _____

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ABSTRACT

The problem was the City of LaGrange had no formal fire education program for preschoolers, and had experienced tragic fires started by this age child.

The research purpose was to determine the effectiveness of preschool fire safety education programs, and the best processes for implementing a program in LaGrange. The questions were:

1. Governmental guidelines for fire safety education for preschool children?
2. Preschool education programs/processes used by fire departments?
3. Documented results of these programs/processes?
4. Bhe best processes for designing a program in LaGrange?

The research method was descriptive and action, with historical review of literature.

Fire department questionnaires and personal interviews resulted in a recommendation for the implementation of a preschool program in LaGrange.

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INTRODUCTION

Education as a means of prevention is recognized today as a viable method for combating many health and safety issues facing Americans. Campaigns against drug abuse, smoking, and violence, as well as those promoting seat belt usage, safe sex and clean air, have made great strides in dealing with critical and costly issues that affect the quality of life in communities throughout this country. Fire departments everywhere have seen prevention education as a means of fighting fires, in an effort to reduce the loss of life and property from these catastrophic events. It is working, too; the fire rate is decreasing and lives are being saved.

The LaGrange Fire Department has participated in prevention education programs for the past decade. This effort started in elementary schools and has grown to include middle school students, as well as adults. During this time the community has seen a steady decline in fires and the loss of life due to fire. However, one area of increasing concern is fires started by very young children, mainly ages 3 to 5 years. Fires started by these young ones still continue, and often have very devastating effects.

While the City of LaGrange Fire Department feels that their education programs in the schools have been successful, there is the realization that an important segment of the high-risk population has been missed. Preschool children and their caregivers receive no formal or comprehensive fire education training. An occasional visit by firefighters during Fire Prevention Week is simply not enough to instill in these youngsters the safe behaviors they need to keep them safe from the dangers of fire.

The research problem addressed by this paper is a lack of formal fire education for preschoolers, and the experience of fires started by this age child. Because of this experience, which includes the recent death of a 3-year-old girl, the LaGrange Fire Department is seeking to formally develop a fire education program targeting 3- to 5-year-old children and their caregivers.

The purpose of this research is to determine the effectiveness of a preschool fire safety education program in reducing the number of child set fires, and to determine the best processes for implementing such a program in the LaGrange community. Such a program would include all preschool aged children and their caregivers.

This study will employ a combination of descriptive and action research to answer the following questions:

1. What, if any, are established national and state guidelines for fire safety education programs for children ages 3 to 5 years old?
2. What, if any, are the fire safety education programs or processes used by departments of similar size, to educate children ages 3 to 5 years old?
3. What, if any, are the documented results of the fire safety education programs or processes used by other departments of similar size for this age group?
4. What are the best processes for designing a fire safety education program for children ages 3 through 5 in the LaGrange community?

BACKGROUND AND SIGNIFICANCE

The LaGrange Fire Department is a fully paid career department consisting of 59 employees. It serves a population of approximately 27,000 and covers approximately 17 square miles. In recent years, the population of the City has begun to increase, due to an

influx of industry and the development of many residential communities. The City of LaGrange has a large industrial base, and had its beginnings as a "mill village" centered around cotton mills. The City of LaGrange is located in Troup County, which is in the Midwestern part of the State of Georgia. Troup County is considered a rural setting.

For many years, the LaGrange Fire Department provided fire safety and prevention education in schools during Fire Prevention Week, and upon request from different organizations. There was not a dedicated educator's position, and the training officer fulfilled these education duties. Based upon this author's personal knowledge, the effectiveness of this type of program was never evaluated.

Over the past 10 years, specific prevention and education programs have been put into place, and a year-round effort has been made with prevention education, especially in the elementary schools. Several lower grade teachers were trained in the use of the National Fire Protection Association's *Learn Not to Burn* curriculum (National Fire Protection Association, 1991), and the fire department was able to purchase a Fire Safety House for use with elementary students. Fire department personnel regularly visit many of the local schools for various events and programs. Through this effort, as evidenced by run reports and statistics, and personal knowledge of fire department personnel, the department has seen a decrease in the number of deaths related to fires, and certainly in the number of unintentional residential fires.

In October of 2002, this department had to deal with a fire-related tragedy. A 3-year-old girl died in a residential fire. This was the first fire death for this community in several years, and it was particularly distressing due to the age of the victim. The pain of

this tragedy was also compounded by the fact that it was believed the child had actually started the fire that took her life.

According to the department's NFIRS reporting system, from January 2002 through the end of January 2004, approximately 10% of the department's building fires were caused by children. The actual percentage is estimated to be more, due to discrepancies in the reporting process, and the fact that investigators are often unable to determine the cause with certainty. While this percentage may seem to be low compared to other causes, the potential for loss of life is magnified due to age and ability. The one death that the department has recently experienced is enough to examine the prevention process for this high-risk group in the LaGrange community.

As the LaGrange Fire Department seeks to meet its mission to "preserve the quality of life…within the City of LaGrange" (see Appendix A), the smallest members of this community cannot be overlooked. Providing a foundation of safety principles at a young age gives a firm base on which to build in later years. While the future certainly cannot be predicted, rearing safer youngsters leads to safer teens. This can lead to safer adults. The whole concept of safety and prevention will grow and develop throughout the stages of life, and will hopefully be passed on to the next generation.

In the National Fire Academy's *Executive Development* class, the concept of leadership is discussed at length. While the concepts are discussed in terms of internal leadership, they are certainly applicable to a fire department as a leader in the community it serves. When speaking of transformational leadership, characteristics such as "caring", "creative", "confident" and "visionary" are measures of good leadership (National Fire Academy, 2004, p. 1-7 – 1-9). As a leader in the community, the LaGrange Fire

Department has the responsibility to provide caring and visionary leadership. The department has a moral and ethical obligation to prevent injury and death from emergency incidents, or to prevent the incident from occurring. Never is this concept more important than when it involves the life of a young child.

It is for these reasons that this author is intent on examining the concept of preschool fire education, its design and effectiveness. It is also the purpose of this research to determine the best processes for designing a program for the LaGrange community. This research will be accomplished through the use of descriptive and action research. Review of available literature concerning appropriate guidelines and other departments' experiences will be coupled with questionnaire forms and local interviews.

Perhaps the entertainer Danny Thomas said it best, "That children should die before their time is, to me, simply unacceptable" (*see http://www.giftoflifeinc.com*). While this statement was made concerning Thomas' founding of St. Jude's Children's Hospital, it certainly applies in this situation. It is the ultimate goal of this research paper to prevent catastrophic events such as the death of a young child from occurring in this City again.

LITERATURE REVIEW

The literature review was conducted to help provide answers to the research questions addressed by this paper. Specifically, a review of available literature examined the following:

1. What, if any, are the established national and state guidelines for fire safety education programs for children ages 3 through 5?

2. What, if any, are the fire safety education programs or processes, used by departments of similar size, to educate children ages 3 through 5?
3. What, if any, are the documented results of the fire safety education programs or processes used by other departments of similar size for this age group?
4. What are the best processes for designing a fire safety education program for children ages 3 through 5 in the LaGrange community?

The review of available literature started with a look at federal guidelines or criteria that might exist relating to preschool education programs. While there appeared to be no specific federal curriculum guidelines for preschool programs, there was nationally accepted research found that was relevant to the development of education programs for preschool children.

It was once generally thought that young children were not capable of learning. Researchers and professionals now believe that the young child's capability to think and learn is more complex than once thought (National Research Council, 2001). While developmental constraints do exist, preschool children have more room for growth, skill acquisition, and understanding than was previously thought possible (National Research Council, 2001). In addition, no longer are education" and "care thought to be two separate concepts. Instead, they are viewed as two sides of the same coin; that is, the concept of "care" facilitates learning opportunities for the young child (National Research Council, 2001, p. 307). When looking at the concept of school readiness, Ramey & Ramey (2002) found that there is an increase in evidence that supports the importance of a child's early

years in future human development. These researchers also point to the increased importance of parents and teachers in the development of a child.

In the year 2002, as part of his continuing education reform package, President George W. Bush proposed a new education initiative focused on early childhood education (U.S. Department of Education, 2004). Entitled *Good Start, Grow Smart*, this program was designed to strengthen early learning for young children, in the hopes of equipping children with the skills they need to start to school. The main focus of the program was to strengthen Headstart programs, work with states to improve early learning, and provide parents, teachers and caregivers with information on early learning (U.S. Department of Education, 2004).

According to the *Good Start, Grow Smart* executive report (U.S. Department of Education, 2004), "children enter the world with a great capacity to learn" (p. 3). These early years in a child's life are a time of tremendous growth, in all different areas, including physical, emotional, social and cognitive. Since the majority of children in America age 5 and younger receive care on a regular basis from someone other than a parent (62%), childcare programs are where this development takes place. (U.S. Department of Education, 2004, pp. 3-4). To quote First Lady Laura Bush "We all have a duty to call attention to the science and seriousness of early childhood cognitive development – because the years between birth and age five are the foundation upon which successful lives are built" (U.S. Department of Education, 2002, p. iii).

The National Association for the Education of Young Children (or "NAEYC") promotes certain learning principles that relate to preschool behaviors. According to NAEYC (1997), a child's development occurs in an ordered and predictable sequence,

and knowledge of this sequence provides a framework that guides teachers in their work. In addition, young children "actively learn from observing and participating with other children and adults" (NAEYC, 1997, p. 5). In addition, NAEYC (1997, pp. 7-8) states that children's play is very supportive of learning, that children need props, space and time to "act out" what they have learned, and that children this age learn and develop best in a community where they feel safe and valued.

In looking at state guidelines for preschool safety programs, the literature review yielded some information. Georgia's Office of School Readiness publishes content standards for its pre-kindergarten programs (Office of School Readiness, 2003). These standards, according to Division Director Daphne Haley, are planned to meet the child's individual needs, and contain a balance of activities appropriate for preschool children (Office of School Readiness, 2003). The Office of School Readiness content standard for Scientific Development contains information pertinent to this research. Standard SD-5c states the child "discusses and utilizes appropriate safety procedures" (Office of School Readiness, 2003, p. 12). Examples of performance indicators include calling 9-1-1 in an emergency, knowing safety rules for the playground, and participating in activities to learn to avoid dangerous situations. However, these standards apply to pre-kindergarten programs only, not all preschool programs (Office of School Readiness, 2003).

While no specific national or state curriculum was found, the literature review uncovered important research that relates to safety education programs for preschool children. At one time, it was thought that preschool children were too young to be able to learn about fire and fire safety behaviors (NFA, 2003). Their safety was totally dependent upon parents and caregivers to provide appropriate environments and take

appropriate actions in emergency situations (NFA, 2003). In 1979, a landmark study was conducted by Peel & Schauble for Children's Television Workshop (or "CTW"), the producers of *Sesame Street*, to identify how preschool children would react to televised fire safety messages. The findings of this research radically changed the feelings of professionals about safety education for preschool children, and have been nationally applied to both televised and non-televised safety programs for preschool children (NFA, 2003).

The study by Peel & Schauble (1979) identified several limitations of 3- to 5-year old children relating to their nature and capabilities. Vocabulary and range of experience of the preschool child are quite limited. A word like "fire" may mean little to a child that has nothing to relate to it. Preschool children also have an unclear and undeveloped sense of time, and they may not be able to understand the relationship of one thing to another, sequence of events, and the concept of cause and effect as it relates to fire. Preschoolers are not very good at considering and comparing more than one alternative and making the best choice. The preschool child is also an imitator, copying what they see and hear. Because of these limitations, they may view what they see and hear in unusual ways. A child may watch the visual part of a program or presentation, and ignore the verbal message. They may fail to link the beginning of a story with its end, or fail to connect the solution to a conflict (Peel& Schauble, 1979).

Peel & Schauble (1979) identified some confusing messages for this age audience, and some model messages as well. Controversial messages include those concerning evacuation, matches and lighters, the stop, drop and roll maneuver, and crawl low under smoke. While it is appropriate to discuss the need for an evacuation plan,

which includes parents in the planning process, it must be emphasized that each family have its own plan. Younger children will not understand or remember a long sequence of events to simply "get out". While matches and/or lighters are the main source of home fires started by young children (Hall, 2003), any discussion about the tools must have a positive message. This audience may fail to connect the word no with an attractive visual of a lit match or lighter (Peel & Schauble, 1979). While Peel & Schauble (1979) found that most educators taught the stop, drop and roll maneuver for clothing fires to this age child, it was felt more information was needed to see if the child could transform this technique to a real-life emergency. The same idea held true for crawling low under smoke.

The model curriculum developed for CTW involved understanding fire, smoke alarms, firefighters as helpers, and scalds and burns (Peel & Schauble, 1979). These young children can understand the concept of "hot", that fire cooks our food and heats our homes, but can burn people and things. Children need to be introduced to the concept of a smoke alarm, its appearance, size, shape and sound, and its function in the house. Firefighters, who can often frighten young children during emergencies, need to be seen as community helpers, important individuals in the neighborhood. Children should begin to realize that the fire station is an important place. This study stressed the importance of modeling, or showing, only the correct or positive behaviors, and to omit real fires, burning clothes or burned individuals (Peel& Schauble, 1979).

While the study by Peel & Schauble (1979) was conducted almost 25 years ago, its message for fire safety educators is still being heard and understood today. It represents a true change in attitude about working with preschool children. This study

has influenced the teaching techniques of those working with young children on safety issues in a positive fashion, and is still viewed today as a guide for preschool safety education. The concepts presented by Peel & Schauble (1979) have served as a foundation for additional research into effective guidelines for teaching preschool children (NFA, 2003)

Hall (2003) found that educational or product redesign strategies "must target preschoolers and probably need to be effective at least as young as 3 years old" (p. 6). Smith (2004) states that while preschool children should not be expected to totally protect themselves, it is important to "offer children the opportunity to learn about safety as early in life as possible" (p. 1). Learning safe habits at this early age may have life long benefits. According to Smalley (1983), the preschool time is the best time to start teaching children positive fire safety messages. It is believed the earlier that a child is taught fire safety, the less likely that child is to react in the wrong way when confronted with an emergency. These fire safety habits, when taught early in life, will become a part of the individual's value system and will carry over into adulthood (Smalley, 1983). Kirtley (2003) believes that there are two basic techniques by which preschool children gain knowledge. "By seeing an image, it is implanted; by doing, the action is learned." (p. 5-35).

Since the Peel & Schauble study (1979), most authors and researchers have agreed on methods for effectively presenting fire safety messages to preschoolers. Kirtley (2003) and Gamache (2003) cite similar methods for successfully educating young children about fire safety and prevention. Lessons for the preschool child must be interactive; seeing and doing are important components in any safety lesson. Children

need repetition, they must practice the desired behavior, and they must always be shown the right approach (Kirtley, 2003). According to Gamache (2003), safety lessons for preschool children must use a variety of activities using all the senses in order for learning to occur. Gamache (2003) also concurs with Kirtley (2003), in that the young child must be taught the appropriate behavior instead of what is inappropriate or unsafe.

Children can also learn from their environment. It has been suggested that safety related equipment, such as telephones, seat belts, helmets, and floatation devices, be added to the learning centers in the preschool setting. This allows the children to model the appropriate behavior and to practice through role-playing (Smith, 2004). According to Smith (2004), "it is important that lessons be focused on what children can do to stay safe, not situations that are outside of their control" (p. 1).

In examining programs and processes used to educate 3 through 5 year olds, the literature review found several formal fire safety curricula that are currently being used by different fire departments. One such program is the NFPA's *Learn Not to Burn Preschool Program* (*LNTB Preschool Program*) (Learn Not to Burn Foundation, 1991). This curriculum addresses the educational needs of children ages 3 to 5 in several ways (Gamache, 2003). According to Gamache & Porth (2001), this curriculum teaches children fire safety and awareness in a non-threatening way. It is not designed to scare children, but to teach them what to do. Activities are participatory, and short but repeated. It introduces the firefighter into the child's environment, and it also involves the whole family by encouraging parents to know what their children are learning. Recognizing that teaching young children about fire safety is only part of the solution, the

program is used in addition to encouraging legislative and engineering initiatives, and training for caregivers of young children (Gamache, 2001).

Play Safe! Be Safe! is another well-known fire safety curriculum designed for preschoolers. Developed in 1994 by Fireproof Children, Inc. and the BIC Corporation, this curriculum teaches similar behaviors, and uses similar educational philosophies and methodologies as those found in the *LNTB Preschool Program* (1991). It also includes a fire safety video that introduces the "friendly firefighter" acting in different situations (Gamache, 2003). *Play Safe! Be Safe!* purports to be effective and easy to implement. It caters to teachers and fire departments that have time and resource restrictions (Fireproof Children, Inc., 1994). It has also been used in various settings throughout the United States (Gamache & Porth, 2001).

Another popular preschool fire safety education program was developed by the Oklahoma City Fire Department. Titled *KID SAFE PROGRAM*, it was developed by Deputy Chief Sherman Cauthen, in collaboration with an Early Childhood Development Task Force created by the Oklahoma City Fire Department (Hansen, 1990). This curriculum teaches seven behaviors, and contains a pre-test and post-test for use by instructors (Hansen, 1990). This program has not only been implemented in Oklahoma City, but in other cities as well (see Putt, 1993; Penney, 1990).

Project L.I.F.E. – Local Involvement in Fire Education is another formal education curriculum designed for the young child. Developed by the Pan-Educational Institute in 1986, it too stresses learning by sensory experience, and contains simple, positive messages for children to be alert to fire and burn dangers, to be cautious and to behave appropriately when threatened by fire, smoke or burn sources (Williams, Sowers

& Blaine, 1986). While not as well known as the above referenced curricula, *Project L.I.F.E.* has been implemented by a number of departments and institutions (Staberg, 1992).

The referenced curricula appear to be the most well known and those most often used by fire departments. However, many departments have developed their own curricula to meet the needs of their communities and their departments. These "local" curricula have been evaluated and tested for their effectiveness in changing behaviors and increasing the knowledge of preschool children concerning fire safety (Emshoff, 1984).

In looking at documented results of preschool fire safety education programs, interesting data was found. The *LNTB Preschool Program* was piloted and field tested upon its development. The original pilot took place in Worcester, Massachusetts, with additional tests performed in Headstart centers in North Carolina. Overall, the increase in knowledge and performance between the pre-test and post-test was 37 percentage points (Gamache, 2001, p. 3). When the *LNTB Preschool Program* was implemented in Portland, Oregon in 1992, no formal evaluation was done, as Portland officials were satisfied with NFPA's documentation of effectiveness. They chose to focus on behavioral changes, measuring success against the history of the juvenile fire problem in their city. Results there indicated that the youth fire problem began to decline significantly after the educational program was implemented (Gamache & Porth, 2001, p. 9). According to Gamache (2001), no other factors have been identified to which one can attribute this behavioral change.

Oklahoma City's *KID SAFE PROGRAM* pilot showed similar results. According to Cauthen (1987), the pre-test to post-test scores indicated a substantial increase in

knowledge for each of the lessons. One example, the lesson on Hot and Cold Objects, showed increases of 37%, 29% and 17% for the 3, 4 and 5 year olds, respectively (Hansen, 1990, p. 7). During the pilot, 73% of the Home Enrichment activities were returned, which demonstrated active involvement by the families (Hansen, 1990, p. 8). Oklahoma City also has documentation of two life saves by young children because they had been in this pilot project (Hansen, 1990).

Other fire departments have published results of their implementation of the *KID SAFE PROGRAM*. The City of Memphis implemented this program with an initial pilot in six childcare centers. According to Putt (1993), "personal observations of the researcher and feedback from parent questionnaires clearly indicated that children who had been exposed to the lessons did show a positive increase in fire safety knowledge in those areas covered in the lessons." (p. 22) While this pilot project identified some areas of concern and improvement, it was stated that those who participated did gain positive fire safety knowledge (Putt, 1993). According to McConnell, Leeming & Dwyer (1996), there was clear evidence that the *KID SAFE PROGRAM* raised the participant's knowledge. Penney (1990) found that, by pilot testing this program in four different regions in Florida, the *KID SAFE PROGRAM* would be a worthwhile addition to any existing preschool program.

Staberg (1992) evaluated the use of the *Project L.I.F.E.* curriculum in Lincoln, Nebraska. He found that those preschool students who received training demonstrated a significant educational gain in their knowledge and abilities of fire and burn safety. His findings led to the conclusion that "*Project L.I.F.E.* is an effective tool for use in increasing knowledge levels" (Staberg, 1992, p. 10). Interestingly, Staberg (1992) did

conclude that adults still held the major responsibility for reducing the fire risk to children.

Emshoff (1984), in looking at the implementation of a locally developed preschool fire safety education program, found that there were significant gains in learning among the 3- to 5- year-old children. In fact, it was found that all three age groups benefited equally (Emshoff, 1984).

In reviewing this data, some questions arose concerning the information and its use. One question concerned the retention of the fire safety knowledge by these young children (McConnell, et. al, 1996). It was recommended by the Memphis study (McConnell, et. al., 1996; Putt, 1993) that periodic retraining might be necessary. Another question is whether the acquired knowledge and skills could be translated into the appropriate action during an emergency, or if these children would make the appropriate choices (McConnell, et al., 1996). However, it was stated "we feel that the findings demonstrate that such programs have definite promise for increasing the probability of a child living through a home-fire emergency or avoiding one altogether" (McConnell, et al., 1996, p. 223).

In looking at the best processes for designing and implementing a community fire safety program, a couple of sources were found. Hansen (1990) suggested starting with a review and evaluation of relevant fire and burn data. A next step might include the creation of a local task force or development team (Hansen, 1990; Children's Television Workshop, 1988). The chosen curriculum should be pilot tested, if new, and modified as necessary (Hansen, 1990). The program should be advertised and special kick-off events should be planned to involve parents and community members (Hansen, 1990; Children's

Television Workshop, 1988). Outside funding for the program may be necessary. Hansen (1990) suggested grants, private foundations or corporations as possible funding sources. Children's Television Workshop (1988) suggested a more local approach, looking to local businesses for in-kind materials as well as financial support.

In summary, the literature review provided a good foundation for the development of a preschool fire safety program in any community. There has been much research that demonstrates the learning capacity for preschool aged children, and the importance of learning at this young age. The literature review also indicated appropriate methodologies and processes for providing education to preschool children. Documented results of existing programs showed a definite increase in knowledge of these young children, but there were questions concerning the translation of this knowledge into action when a true emergency occurs.

PROCEDURES

Research Methodology

The purpose of this research was to determine the effectiveness of a preschool fire safety education program in reducing the number of child set fires, and to determine the best processes for implementing such a program in the LaGrange community. A descriptive research methodology was used, with the administration of a questionnaire form submitted to other fire departments and personal interviews conducted at the local level. In addition, action research was used to develop an implementation plan for the LaGrange Fire Department.

Literature Review

This research project started with a review of available literature on the subject of preschool education, specifically looking at preschool fire safety education. This process started with a review of material available at the Learning Resource Center at the National Fire Academy. There were several applied research papers on file that provided good information as a basis for this paper, as well as other periodicals, books and reports. Next, an Internet search was performed using different search engines looking for applicable periodicals and articles. Additionally, research on the Internet was performed using a state-administered on-line database named GALILEO, which stands for "Georgia Library Learning On-Line". A search of available databases supported by GALILEO (including ProQuest and Primedia) yielded several articles relating to preschool programs, preschool safety programs, and preschool fire safety education. Finally, a review of information available at the local public library was conducted, though it yielded nothing that had not already been uncovered.

Questionnaire

A questionnaire was developed to address some of the research questions of this paper (See Appendix A for Questionnaire). The questionnaire was distributed via e-mail to 80 fire departments in the United States. These departments were of various size, location and composition. A cover letter was provided with each questionnaire stating the reason for the questionnaire, and the purpose of the research (See Appendix B for the Cover Letter). Respondents were given approximately one month to complete the questionnaire and return it via e-mail, fax or regular mail. Of the 80 surveys distributed, 39 were returned, for a return rate of 49%.

The questionnaire was designed to be simple and easy to complete. The first part of the questionnaire asked for demographic data, in order to make proper comparisons between departments. The remainder of the questionnaire consisted of questions relevant to this research paper. This author examined the results of the responses. Then, the responses to all questionnaires were compiled and evaluated. The responses were then separated by department size, and then by population served for better comparison results.

Personal Interviews

Five personal interviews were conducted at the local level to determine the best processes for implementing a preschool fire safety program in the LaGrange area. The individuals interviewed have extensive backgrounds in early childhood education and care, and are highly respected in the community. Those interviewed represented the public school system, a privately owned child care center, a not-for-profit child care center, the Headstart Centers, and a state agency which oversees quality and training for child care employees. The interviews were conducted at each individual's place of business (with the exception of Mary Jackson), and each lasted 15 to 30 minutes each. A total of six questions were asked of each interviewee (See Appendix C for the Interview Questions).

Gwen Redwine, Director of LaGrange Child Development Center, was one of the interviewees. Redwine has 29 years of experience in early childhood care and development. Her center is a non-profit center supported by United Way, and the majority of her clientele are high-risk children. This is evident by the age of the children (3 to 5 years) and the lower socioeconomic population the center serves. Redwine

serves on several local boards dealing with children and local issues. The interview was conducted on July 30, 2004 at her center and lasted approximately 30 minutes.

Mary Jackson is the director of Childcare Resource and Referral Agency of West Central Georgia. This is a state agency, though it receives federal funding as well. Jackson is the director for West Central Georgia area, working with childcare centers and family care homes in approximately 12 counties. Jackson's interview took place on July 28, 2004, over the telephone due to her location and her busy schedule. It lasted approximately 20 minutes.

Yvette Woodyard owns a private childcare center in LaGrange, and has been in business for approximately 20 years. She is a native of LaGrange, and has many resources in this community. She also provides pre-kindergarten classes at her center through the Office of School Readiness in Georgia. This interview took place on August 5, 2004, at Woodyard's center in LaGrange, and lasted approximately 15 minutes.

Juanita Davis is the County Headstart Manager, with responsibility for three Headstart Centers located in Troup County. Davis has 30+ years of experience with Headstart, having started as an assistant teacher. Davis was interviewed on August 18, 2004, at her office located at the LaGrange Headstart Center, and the interview lasted approximately 30 minutes.

Donna Thompson is the Pre-Kindergarten Program Director for Troup County School System. She oversees 20 public pre-kindergarten classes throughout the system. She has held this position for 5 years, and has an extensive background as a classroom teacher and as a family support specialist. The interview took place on August 27, 2004, in her office, and lasted approximately 30 minutes.

Limitations of Research

The first limitation of this research relates to the fire departments chosen to receive the questionnaire. No effort was made to determine which departments were of similar size prior to sending out the questionnaire. While comparing questionnaire responses from departments of similar size provides responses to the questions addressed by this research, it was determined that it was also important to look at the types of programs, quality of programs, processes of implementation, and results of all fire departments conducting preschool fire safety education.

An additional limitation of this research relates to some of the questionnaire responses. It was apparent that some individuals, when responding to the questionnaire, failed to recognize that the target audience addressed was preschool children (those ages 3 to 5 years). Some of the responses addressed programs that were conducted in elementary schools, or those for grades kindergarten through five. While looking at a community's overall risk reduction plan is important, these responses may have skewed some of the data.

Another limitation with the responses to the questionnaires concerned responses to Question #9. This question was misunderstood by many respondents, in that they felt it was asking the type of process used to develop the specific program, or the delivery methods for the curriculum, not the total implementation process in the community. While some of the information provided was beneficial to this research, were this questionnaire to be used again, Question #9 would need to be re-worded to obtain the

desired information.

RESEARCH RESULTS

The results of this research study were very positive regarding the implementation and effectiveness of preschool fire safety education. The personal interviews and questionnaire responses, as well as the literature review, provided answers to the research questions this paper addressed.

A review of national and state education guidelines, as well as a review of available literature on this subject, did not show the existence of any formal guidelines for fire safety education for children ages 3 through 5 years old. Initiatives such as *Good Start, Grow Smart* (U.S. Department of Education, 2002) at the federal level deal mainly with academic skills and knowledge, and there is no specific reference to safety education as a component of these programs. At the state level, standards developed by the Office of School Readiness (2003) make a small reference to the student being able to perform proper safety precautions, but there is no specific criteria or curriculum recommended specifically for fire safety awareness.

The programs or processes used to educate preschool children were many and varied. The literature review yielded several formal curriculum programs that are being used. These included NFPA's *Learn Not to Burn Preschool Program* (1991), Oklahoma City's *KIDS SAFE PROGRAM* (1987), Fireproof Children's *Play Safe! Be Safe!* (1994) and *Project L.I.F.E.*, developed by the Pan-Educational Institute (1986). The questionnaire responses from departments presently using formal curricula indicated the use of *Learn Not to Burn Preschool Program* (1991) and *Play Safe! Be Safe!* (1994).

None of the respondents referenced *Project L.I.F.E.* (1986) or *KIDS SAFE PROGRAM* (1987). Several of the respondents stated that the program being used in their community was developed locally to meet local needs. One additional curriculum that was cited in the questionnaire responses as presently being used was the National Fire Protection Association's *RiskWatch* (National Fire Protection Association, 1998). During the literature review process this curriculum was found but was not included in the literature review itself because the curriculum appeared to be focused more toward older children (kindergarten and above). Several respondents stated they were using the Pre-Kindergarten version of *RiskWatch* (NFPA, 1998), or some modified version thereof.

The processes used to educate, in addition to formal curricula, were again varied and widespread. The literature review provided much information concerning the appropriate methods of instructions for preschool children. Developmentally appropriate instructional methods included repetitive, active, simple and short lessons with positive skills and reinforcement. The research developed by Peel & Schauble (1979) was invaluable in providing successful and effective methods of instruction for these young children.

The questionnaires provided additional processes for delivering fire safety education to preschoolers. Several of the respondents provide training for preschool teachers as part of a "train-the-trainer" program, allowing teachers to use their expertise in instruction to teach the curriculum, while having local fire department support. Other departments with less formal programs use different types of educational media, including puppets, clowns, robots, safety villages and fire safety houses. A common theme throughout all the questionnaire responses was the topics of information taught to

the children. For those departments with either formal or informal programs, some kind of “friendly firefighter” instruction was provided, as well as instruction in the “stop, drop and roll” method for extinguishing clothing fires. Other common messages included matches and lighters as tools, and calling 9-1-1 in an emergency.

Documented results for the various programs were also found. Those programs identified in the literature review were formally pilot-tested prior to distribution and implementation. The results of those pilot tests and evaluations showed an increase in the knowledge and skill levels of the children involved. The responses to the questionnaires indicated that several of the departments having formal preschool programs have documented results. Most are in the form of anecdotal stories or teacher surveys. While many of the questionnaire respondents did not have documented results, all of them believed that teaching these youngsters the skills and knowledge to keep themselves safe from fire was effective and resulted in life-saving actions.

In looking at the best processes for designing and implementing a preschool fire safety program in LaGrange, the personal interviews conducted locally yielded information to aid in this process. While the processes differed slightly for the different types of centers (private, non-profit, public school), all were willing to provide teacher training time and had ideas for involving parents and the community in this program. Several asked for a formal action plan and a copy of the proposed curriculum to present to a higher-level manager for approval (see the section on Results of Personal Interviews for more detailed information). The information found during the literature review echoed the information obtained in these interviews, including development of a community task force, use of kick-off events, and training sessions for teachers.

Results of Questionnaires

As stated earlier, 80 questionnaires were distributed to fire departments across the United States. These departments varied in size, location and composition. Of the 80 questionnaires sent, 39 were returned, for a return rate of 49%. (See Appendix E for a compilation of questionnaire responses.)

In looking at the questionnaires that were returned, 26 departments (or 67%) had formal preschool education programs. Twelve of the remaining 13 departments (or 31%) had some kind of informal program for preschoolers, or worked with them in some way. Only one department (or 2%) had no type of program for this age group.

Of the 26 departments having formal preschool education programs, 12 had some type of documentation relating to results of the education program. Some of their documentation was in the form of surveys from parents and/or teachers, some was anecdotal information, and some was simply number of student contacts. While all agreed that documentation of results was important, some departments stated that their programs were not formal enough to evaluate, or that they had no means for evaluation. None of the departments with informal programs had any documentation of the results of their programs.

Interestingly, however, all respondents believed that some form of preschool fire safety education was important and effective. Several recognized their lack of supporting data, but still expressed their belief in the success of their programs. For some, this belief was based on fire reports or fire data for their communities. Many stated that the number of fire deaths had decreased, or that the number of child-set fires had declined since the program was started. Others attributed effectiveness of the program to such instruction

occurring at an early age, at a “teachable time” in this child’s life, when a child has an “open mind”. Some made reference to the age-appropriateness of the instruction that led to their belief in the effectiveness. Two respondents placed success with the ability of the parents or caregivers to reinforce skills and knowledge in the home. One respondent stated “common sense” led him to believe in the effectiveness, and another stated, “it might take a while to determine” if programs were effective.

In regards to the processes used to design and/or implement the program in the community, the responses to this question were varied. While the question was ambiguously written, several respondents did provide answers that were responsive to the intent of the question. Several discussed looking at local fire data, identifying trends that needed to be addressed. Any curriculum presently in use was then modified to address those trends. Another process was the use of building permits as a means for notifying new daycare centers. When a new center obtains a permit, they are sent a letter from the fire department that outlines the fire safety program and asks for permission to implement the curriculum at the new facility. Several departments began their program with educating the teaching staff at the various schools or centers in the use of the curriculum, and providing the tools and support resources that were needed. Others worked with the school system and private preschool or daycare establishments to develop the program. One department stated that the Headstart Center was the key to success in that it was able to make the fire safety curriculum a permanent part of their curriculum. All departments mentioned the benefit of the train-the-trainer classes for the teachers or leaders of the various daycare or preschool centers.

Seventeen of the 39 responding departments (or 44%) were identified as serving similar size populations. Ten of those departments (or 57%) had formal preschool programs, six had informal programs, and only one had no interaction with preschool children. Five of those departments had formal documentation of the effectiveness of the program. For purposes of this research, the departments in this category served populations from 15,000 to 50,000. (See Appendix F for a listing of these departments).

For the respondents that were identified as being similar size departments (13 of the 39, or 33%), eight formal programs, four had informal programs, and, as before, one had no program at all. The same five respondents responded affirmatively to having documentation of the effectiveness of their programs. For purposes of this research, the departments in this category had 30 members to 71 members. (See Appendix G for a listing of these departments).

Of course, there was overlap between the two groups, with twelve respondents falling into both categories. There was no remarkable difference in the responses to the questionnaire from the departments serving similar size populations and departments of similar size, and those of the entire group of respondents.

Results of Personal Interviews

The results of the personal interviews were very positive, and supported the need for a formal preschool fire safety education program in the LaGrange community.

All of the individuals interviewed indicated they felt the need for a formal preschool education program in their center or school. Redwine (personal interview, July 30, 2004) related an incident where fireplay by one of her students had resulted in a fire at the child's residence on two different occasions. Jackson (personal interview, July 28,

2004) stated that children should be taught fire safety awareness skills at an early age because they have a higher death rate from fire. Davis (personal interview, August 18, 2004) said there had been several incidents where her students had burned themselves, especially with candles. She also said that one of her students had died as a result of a residential fire two years prior. This fire was possibly the result of fireplay by that child. Woodyard (personal interview, August 5, 2004) also echoed the sentiments of the others. Thompson (personal interview, August 27, 2004) not only stated that fire safety education at this age was the "right" thing to do, she cited an example where a 4-year-old child had set several fires at his residence, including his baby brother's bed.

When asked if teaching fire safety skills to these young children would be effective, all interviewees responded affirmatively. Redwine (personal interview, July 30, 2004) said that children could learn these skills and often times would teach them to their parents. She discussed the importance of repetition in teaching, giving an example of asking the blessing before a meal. Jackson (personal interview, July 28, 2004) said that teaching these skills would be effective, as long as they were taught in a non-threatening way. She said "children can learn exactly what to do if they find themselves in danger from fires or burns". Thompson (personal interview, August 27, 2004) echoed the previously discovered developmentally appropriate methods of repetition and reinforcement in the classroom and at home. All interviewees agreed that the instruction and materials would have to be age-appropriate in order to be effective.

When discussing the best processes for implementation, the answers varied. Redwine (personal interview, July 30, 2004) stated that she would be the individual to approve any new curriculum. Davis (personal interview, August 18, 2004) said that a

copy of the curriculum and a formal proposal would need to be provided to the Headstart Director for approval, which she felt would be granted with no objection. Thompson (personal interview, August 27, 2004) stated a copy of the curriculum and an action plan would need to be presented to her, and she would seek approval from the school superintendent. Woodyard (personal interview, August 5, 2004) proposed handing out flyers, seeking newspaper and media support and simply word of mouth as a means for gaining support. Jackson (personal interview, July 28, 2004) suggested the formation of community partnerships to introduce and support the program, and speaking to child care centers and preschool programs. All interviewees agreed that they would be more than willing to provide training time for their teachers, and classroom time for the actual instruction of the curriculum.

While all agreed that evaluation was important, methods for evaluating these young children varied. Davis (personal interview, August 18, 2004) suggested the use of anecdotal information relayed by the parents, or the children themselves, to the teachers. Redwine (personal interview, July 30, 2004) and Woodyard (personal interview, August 5, 2004) suggested oral questionnaires, given either individually to the children or as a group. Jackson (personal interview, July 28, 2004) also suggested the use of pictures as a means of determining a child's knowledge. Thompson (personal interview, August 27, 2004) stated that the pre-kindergarten teachers used an observation report form when a teacher or assistant overheard or observed the child talking about the knowledge learned, or demonstrating the skills when at play.

Action Plan

As a result of the above research findings, an action plan was developed to use for implementation of a preschool fire safety education program in the LaGrange community. This action plan takes into account the information discovered from the literature review, information obtained from the experiences of other fire departments, and the advice and counsel of local preschool professionals. A copy of this action plan is included as a part of this research paper and is attached as Appendix H.

DISCUSSION

For many years, the responsibility for the safety of young children in fire emergencies has rested solely with parents and caregivers. No one believed that a preschool child was capable of learning about the dangers of fire and fire play, and the skills necessary to save their lives during a fire emergency. It is now apparent that young children can be armed with the knowledge and skills necessary for fire prevention and survival. The key to making such educational processes successful is the use of developmentally appropriate materials and methodologies.

The fire service has done a great job in introducing preschoolers to the concept of fire departments as community members. However, many departments still lack the resources or initiative to provide effective education to children this age. Statistics show that children under age 5 are twice as likely to die in fire as the general population (Hall, 2003). Therefore, it is imperative that formal fire safety education be delivered to this high-risk group, and the fire service should be an integral part of this education process.

The literature review provided an excellent foundation for the implementation of preschool fire safety education. In researching federal and state guidelines for preschool

fire safety education programs, it was found that the initiative *Good Start, Grow Smart* (U.S. Department of Education, 2004) provided a basis for support at the national level. If the purpose of this program is to "provide a foundation upon which successful lives are built", as First Lady Laura Bush suggests, there should be a component which allows children to be successful in leading safe and fire-free lives.

At the state level, the performance standards developed by the Office of School Readiness (2003) provide a window of opportunity to add fire safety to any preschool curriculum. If a child is to "discuss and utilize appropriate safety procedures" per Standard SD-5c (Office of Readiness, 2003, p. 12), certainly fire safety is a component of this standard. Both the national initiative and the state standards provide a "foot in the door" with local administrators and educators to add fire safety to what may be an already full curriculum.

While there appears to be a foundation at the national and state level for safety education programs, a more important discovery was the use of the appropriate methodologies and processes for making fire safety delivery successful to this target audience. The concepts outlined by Peel & Schauble (1979) for the Children's Television Workshop provided developmentally and educationally sound methods for teaching children the important knowledge and skills they need for fire emergencies. These concepts have endured over time, and have been used to develop formal programs for educating preschoolers, such as NFPA's *Learn Not to Burn Preschool* (LNTB Foundation, 1991) and *Play Safe! Be Safe!* (Fireproof Children, Inc. 1993), and others. A curriculum developed with short, simple and positive messages, reinforced by

repetition and hands-on activities, will provide the most effective educational experience for the preschool child.

The responses to the questionnaires and the information obtained from the personal interviews support these findings concerning programs and processes of implementation and delivery. Many departments and communities are using one of the curricula discussed in the literature review, and appear to be successful in their efforts. Others have developed their own curriculum to address local needs and trends, with these programs using developmentally appropriate methods of instruction. Local professionals that were interviewed used terms such as “repetition”, “active”, and “simple” when discussing delivery methods, and all expressed the opinion that children ages 3 through 5 can be taught to protect themselves from the dangers of fire.

It was interesting to see the number of questionnaire responses, and personal interview responses, that paralleled information discovered in the literature review concerning parental or caregiver involvement in the education process. Several of the respondents stated that while children seemed to learn the skills, they lacked the ability to “transfer” or “transition” this knowledge to their home environment. In addition, parents were less likely to provide a safe environment for the children to live, as they themselves were unaware of the safety issues regarding fire and children. It was obvious from all research that these young children do not learn in a vacuum; that is, they must be taught at school, and the same behaviors reinforced at home. Therefore, it is important to have parental or caregiver involvement in the programs in which the children are participating.

Another interesting observation from the questionnaire responses was the departments that had no formal program for preschoolers. There appeared to be no

common thread for these departments. Some were in large cities, some small; some were in rural areas, some urban areas. Some were volunteer departments and some were paid. It did appear that the departments having formal preschool education programs had a comprehensive community risk reduction program, and most had someone who was in a dedicated risk reduction position or held responsibility for those duties in the community. Some of the respondents stated that a lack of a fulltime educator's position was the reason for no program. Some stated that, due to budget cuts, the programs and/or educator's position had been cut. In reviewing the questionnaire responses, it would appear that organizational commitment to risk reduction is an important component of the success of the program.

Documented results of these programs seemed to be a little harder to discover. Programs discussed in the literature review that had been formally pilot tested provided clear and convincing results that those students who participated in the programs demonstrated an increase in knowledge. However, the fire departments providing questionnaire responses did not appear to have the documentation that might be required to call the programs successful. This challenge to preschool education programs seemed to be widespread. Only a few of the departments having a formal preschool program had documented results of the program. Some were in the form of teacher surveys, while others were in the form of anecdotal stories. Because of the age and developmental status of this target audience, it appears to be difficult to measure actual knowledge gained, and even more difficult to tell if this knowledge is transformed into action. Despite the lack of documented results, all questionnaire respondents and interviewees expressed the

belief that these efforts were not in vain, and that the number of deaths and child-set fires had decreased.

Documented evaluation appears to be very time consuming and possibly expensive. A creative means of documenting results needs to be developed in order to show the success in instilling the proper behaviors and responses of these children when confronted with fire and fire tools. Local suggestions included question and answer periods, teacher surveys, and anecdotal stories provided by parents and/or the children themselves. Of particular interest was the concept of observation mentioned by Thompson (personal interview, August 27, 2004). She stated that teachers observe the students during their playtime, or their "center times", and make notes if the children discuss and/or mimic the correct behaviors taught in the curriculum.

The personal interviews conducted at the local level provided grass roots information that will be invaluable if a preschool program is to be designed and implemented in this community. All individuals interviewed believed in the need for such a program. Thompson (personal interview, August 27, 2004) said it best when she said it was the "right thing to do". These professionals recognized the need for such a program, as was evidence by Jackson (personal interview, July 28, 2004), who stated "children 5 and under have the higher death rate". The interview with Davis (personal interview, August 28, 2004) not only provided important procedural information, but was also filled with enthusiasm and support for this type of program. Several of the questionnaire responses provided ideas for developing a program in any community, and those participating in the interview process provided the necessary action steps that will need to take place in order to begin this process in the LaGrange community.

After gathering all the data, looking at existing literature and gathering new information, it is apparent that preschool fire safety education is a must for any community that values fire prevention. These young children can learn, they can perform life saving actions, and can instill a value system that will, hopefully, allow them to grow and make safe decisions. In order for this to occur, however, fire service professionals must understand how these children learn, and be willing to take the time necessary to make programs such as these successful. From this research, this author believes that it is now apparent that, while doing Fire Prevention Week programs is a good thing, these youngsters will not totally grasp the concept of fire safety from a one- time program each year. The programs must be short, continuous, and repetitious, and reinforced through activities, stories and songs, with parental involvement. When this happens, changes will be seen in the fire and injury rate among this high-risk group of children.

RECOMMENDATIONS

From the results of this research, it is clear that the implementation of a preschool fire safety education program in the LaGrange community is a logical and appropriate step to take. The addition of this program will compliment and enhance education programs that already exist, and will only serve to enhance the effectiveness of the department's fire prevention efforts in the community.

Since key local professionals in the preschool education field have already been identified and interviewed, it will be important to draw on their expertise in this endeavor. A local advisory group should be established for this project. There appears to be formal curricula available for implementation, but these will need to be reviewed to ensure that local needs and trends are being met. A decision will have to be made as to

the appropriate curriculum to implement, a decision that will be based on the opinions of the advisory group and this department.

As stated in the literature review, and evidenced by the experience and comments of other departments, parental involvement will be imperative in the success and effectiveness of this program. The personal interviews indicated that most preschool centers and pre-kindergarten programs have some kind of parent meetings, and these can serve as "kick-off events" for the program in the different centers and schools. Parents will need to be included in this program by way of take-home materials and/or letters advising them of the lessons being taught, so that they can be reinforced at home.

Support for teacher training was also indicated in the personal interviews, and this will be an important process for success. Teachers need to understand the importance of this program for the safety of their students and the families involved. They will need to be introduced to the components of the curriculum then allowed to proceed with the program using their own expertise and experience in working with young children.

From this research project, it is evident that adequate evaluation of this project will be imperative for its continuance in this community. In order to maintain funding and interest, positive results must be demonstrated. It will be important to use every means of evaluation that can be found to document results of the program. Those departments that indicated by their questionnaire responses they have a means of documenting results will be contacted to ascertain the exact method used, whether by survey, observation, testing, or other means. Any forms that they are willing to share will be examined for appropriateness to this community and this endeavor.

As with any education program, it will take time to discover if this program has achieved the desired result, which is a reduction in the number of fires started by preschool age children. Run reports and fire cause data will need to be monitored on regular intervals. Department members will need to be apprised of the importance of relating "success stories" when residential fires occur or appropriate behaviors from these young children in other emergency situations. A complete Action Plan for implementation of this program is attached to this research paper as Appendix G.

This author is both excited and encouraged by the results of this research. The research demonstrates that educating preschool children on proper behaviors and actions in relationship to fire and fire-play is not only possible, it is appropriate and working positively in other communities. The local preschool community appears to be in favor of this program, despite added responsibilities and demands already placed on them by government organizations and regulations. No longer is the safety of young children left solely to the parents or caregivers. It is possible to give these children the information and knowledge they need to keep themselves safe from fire, and to rescue themselves should the situation arise. Preschool fire safety education is simply the right thing to do – for the children involved, for their families and for the community-at-large.

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APPENDIX A

MISSION STATEMENT OF LAGRANGE FIRE DEPARTMENT

APPENDIX A

MISSION STATEMENT

OF LAGRANGE FIRE DEPARTMENT

To preserve the quality of life, protect property and maintain a stable environment within the City of LaGrange through Efficient Management, Public Education, Fire Prevention, Emergency Response Services, and Community Interaction.

APPENDIX B

FIRE DEPARTMENT QUESTIONNAIRE

Appendix B

Pre-School Fire Education Survey

Name: _____

Title: _____

Department Name: _____

Address: _____

City/State/ZIP: _____

Telephone: _____ Fax: _____

E-mail Address: _____

Department Size: _____ Paid _____ Volunteer

Total Population Served by department: _____

Is your department considered: Rural_____ Urban _____

1. Does your department have a formal pre-school (ages 3-5) fire education program in your community? This can be Learn Not to Burn Preschool, Play Safe! Be Safe!, any other similar program, or one of your own design.

   _____ Yes _____No.

2. If not, what activities, programs, processes, training and/or education does your department provide or participate in with pre-school age children (ages 3-5) related to fire safety education? _____

3. How long has the program been in place? _____

4. Title of curriculum (if one): _____

5. How many children are reached by your program(s) each year? _____

6. Do you have documented results of your programs or activities? _____

7. If yes, would you be willing to share this information? _____

Page Two

8. Do you believe your programs or activities to be effective in reducing the number of child-set fires, and deaths and injuries to this age group? Why or why not?

9. Can you provide a brief synopsis of the processes used to design and/or implement the program(s), processes, activities, training or other activities in your community for preschool age children?

Thank you for your time! This information is being used in the preparation of an Applied Research Paper for the Executive Fire Officer Program of the National Fire Academy.

Please return survey to:

Lt. Beverley Walker
LaGrange Fire Department
301 Main Street
LaGrange, GA 30240
Phone: 706-883-2655
e-mail: bwalker@lagrange-ga.org
fax: 706-883-2654

APPENDIX C

COVER LETTER FOR QUESTIONNAIRE

Appendix C

Dear Friends in the Fire Service:

I am presently enrolled in the Executive Fire Officer program at the National Fire Academy, and am working on an applied research paper. The subject of this paper concerns fire safety education for the preschool child - ages 3 to 5. I am in the process of determining what other departments are doing in this area, and any successes that have been seen as a result of these programs. I will, of course, be looking at departments similar to my own to make valid comparisons.

Attached there is a short survey form that will provide information for this paper concerning activities or programs that are presently being performed by your department with pre-school age children. If you could take a couple of minutes and complete it, I would certainly appreciate it. I realize that some of you may not be the correct individual for completing this form; if you would be so kind as to forward it one to the proper individual within your department, I would appreciate it. You may return the form by e-mail, fax, or even the U.S. Postal Service! Information should be listed at the bottom of this page.

If you are presently not doing any activities with this age group, please let me know that as well. All information is important. I also would like to be able to contact some of you later, as I compare demographic data to get more information and begin to write this paper. I would like to get all this information back by June 18, 2004, if possible.

I really do appreciate your time and effort in helping me with this project. I hope that that finds all of you well, and safe.

Yours very truly,

Beverley Walker

<<Dept survey.doc>>

Lt. Beverley Walker
LaGrange Fire Department
301 Main Street
LaGrange, GA 30240
phone: 706-883-2655
pager: 706-242-2801
e-mail: bwalker@lagrange-ga.org
fax: 706-883-2654

APPENDIX D

PERSONAL INTERVIEW QUESTIONS

Appendix D

INTERVIEW QUESTIONS
FOR PRE-SCHOOL PROVIDERS

PRESCHOOL FIRE SAFETY PROGRAM

Name of Interviewee: _____

Center Name: _____

1. Do you feel that there is a need for a formal fire safety education program for children ages 3-5 in this community?

2. Do you believe that teaching these young children fire safety skills is effective, i.e., can they learn and understand?

3. What is the best process for implementing a formal fire safety education program in your center?

4. Would you be willing to provide training time for your teachers to prepare them for teaching this curriculum?

5. Are you willing to devote sufficient classroom time for this type of program?

6. Will you be able to provide results (i.e. evaluation information) to further support this program?

APPENDIX E

QUESTIONNAIRE RESULTS

Appendix E

			Quest.#1	Quest. #2	Quest. #6
Jurisdiction	Population	Dept. Size	Formal ?	Informal ?	Results ?
Rockdale Co.	73,558	102	Y	Y	Y
Wilmington, DE	76,000	172	Y	-	Y
Cherokee Co., GA	142,000	250	N	Y	N
Tempe, AZ	165,000	175	Y	-	Nothing formal
Albany, OR	50,000	65	N	Y	N
Stillwater, MN	25,000	8 pd 35 vol	N	Y	N
Hagerstown, MD	36,800	65 pd 35 vol	Y	-	Y
W. St. Paul, MN	20,000	20	N	N	N
Spokane, WA	195,000	350	Y	-	Y
Orlando, FL	195,000	508	Y	-	N
Washington T'ship, IN	36,469	52	Y	-	Y
Arlington Co. VA	200,000	300	Y	-	N
Prattville, AL	30,000	88	Y	-	N
Plain T'ship, OH	50,000	40 pd 20 poc	Y	-	Y
El Paso, TX	750,000	750	Y	-	Y
Central Kitsapf, WA	65,000	85 pd 81 vol	Y	-	N
Gainesville, FL	111,000	142	Y	-	N
Henrico Co. VA	265,000	450	Y	-	N
St. Lucie Co., FL	209,000	365	Y	-	Y

					#1	#2	#6
Jurisdiction	Population			Dept Size	Formal?	Informal?	Results?
Riverdale, GA	17,500			39	Y	-	Y
Crisp Co., GA	10,830			19 pd 20 vol	Y	-	N
The Villages, FL	40,000			35 pd 10 vol	Y	-	N
Martinez, GA	68,000			62 pd 60 vol	Y	-	Y
Marietta, GA	42,000			130	Y	-	N
Waycross, GA	18,000			46	Y	-	N
Manitowoc, WI	34,000			59	Y	-	N
Dallas TX	1,188,500			1688	Y	-	Y
Pelham, AL	16,521			63	Y	-	Y
Cobb Co., GA	650,000			650	Y	-	N
Moline, IL	45,000			71	N	N	N
Ft. Lauderdale, FL				355	N	Y	N
Hall Co., GA	153,630			267	N	Y	N
Muscatine, IA	22,697			38	N	Y	N
Valdosta, GA	50,000			100	N	Y	N
Union City, GA	15,000			30	N	Y	N
Allen Park, MI	30,000			32	N	Y	N
Prince Wm. Co., VA	350,000			300 pd 700 vol	N	Y	N
Waterford T'ship, NJ	12,500			45 vol	N	Y	N
Rome, GA	91,000			156	Y	-	N

Jurisdiction	Question #8 – Effective ?	Question #9 - Processes
Rockdale Co., GA	Yes – word of mouth	Ideas proposed to asst. chief; secure fund, training, notifying schools
Wilmington, DE	Yes – drop in fires and deaths	Designed around community being served
Cherokee Co., GA	May be effective – no documentation	N/A
Tempe, AZ	No child deaths due to fires in 18 years	Send letters to preschools reminding them of the program
Albany, OR	Reduce fear – up to parents to keep kids safe	Talk to preschool parents; use Headstart; friendly firefighter
Stillwater, MN	(no answer)	Kindergarten gets puppets; 1st grade gets fire safety house; 5th gets slide show (programs developed in-house)
Hagerstown, MD	Yes, because of integrated approach – overall effort	Monitor fire data, then modify curricula; custom designed curricula
W. St. Paul, MN	Yes, common sense	(no reply)
Spokane, WA	Yes, Increased awareness; no child deaths in last four years	Play Safe! Be Safe!; training sessions for preschool providers; lending library; work with Headstart; integrated approach
Orland, FL	Reduction in number of fire play incidents and fire deaths	RiskWatch; Uses permiting process for new centers; new ones get letters about program
Washington T'ship, IN	Students do benefit, but will not see reduction for a little while	RiskWatch; training with 12 preschools with fire dept. support over the school year
Arlington Co., VA	No definitive proof – but do believe have reduced # of child set fires	Respond to requests; information handed to new parents; local libraries; child restraint classes
Prattville, AL	Yes, no fire started by child or fire injuries/deaths in last 10 years	RiskWatch; ask for help from child provider; go to center and educate teachers; provide props, and other materials
Plain T'ship, OH	Somewhat; reduced child fire play and increased reaction; however, adults do not react properly	Worked with school system and private pre-school day care establishments
El Paso, TX	Yes, instill behavior at early age; take behavior home and teach family	LNTB Preschool; sell idea to school administrators; Headstart was key in making it a part of their curriculum; fire dept. committed to train the trainer program

Jurisdiction	Question #8 – Effectiveness?	Question #9 - Processes
Central Kitsap, WA	Yes, valuable behaviors and skills and knowledge during early stages of learning	LNTB and RiskWatch; market to all private and public preschool and daycare centers; provide free materials; conduct workshops for teachers
Gainesville, FL	Provides realistic environment – hands-on learning yields better and lasting results	Safe City project; reviewed other departments' programs, sought donations; hired coordinator
Henrico Co., VA	Yes, increased awareness of caregivers, teachable time in child's life. Numbers lower than before	Talk to children and adults; simply messages and focused; use of libraries
St. Lucie Co., FL	Yes/No. Learning environment must be pleasant, but some never make the transition to home environment	RiskWatch; I can send lesson plans, materials used and suggested activities
Riverdale, GA	More in 5 yr olds than in the ¾ year olds. More formal understanding	Utilizes Riskwatch program at various schools and daycares; uses alternative teaching methods
Crisp Co., GA	Yes, deaths have been reduced and it is a good foundation	Use puppets and demos. Redesign program every year.
The Villages, FL	Awareness and prevention is important ; yes	Works with Allstate Ins.; firefighter dress-out, video, fire helmet
Martinez, GA	Yes, anecdotal stories	Fire safety house
Marietta, GA	Unknown	(dealt with older children)
Waycross, GA	Yes, reduction in fire deaths and child set fires	Alternative teaching methods
Manitowoc, WI	Yes	Stop, drop and roll; station tour
Dallas, TX	Yes. Because of childrens' interest in programs	Play Safe! Be Safe!
Pelham, AL	Yes. Children taught dangers of matches and lighters	Discuss and define items in bag; Toy/Not Toy

Jurisdiction	Question #8 – Effectiveness?	Question #9 - Processes
Cobb Co., GA	Yes, although no adequate evaluation method	Risk Watch ; tailored to meet needs of community
Moline, IL	No – no formal program in place	Plan on using Riskwatch
Ft. Lauderdale, FL	N/a	N/a
Hall County, GA	No, not right now. Not spending enough time	No response
Muscatine, IA	Potential is there to influence behavior and reduce injury/death	Uses Freddie the Firetruck robot
Valdosta, GA	N/a	Junior Fire Marshal program for K-5th grade – no preschool program
Union City, GA	Yes, only 2 child set fires in last 10 years and no deaths	Use information provided by NFPA, NFA and other firefighters
Allen Park, MI	Education programs have far reaching results not always documented	N/a
Prince Wm. Co., ,VA	N/a	N/a
Waterford Twp., NJ	Not formal enough to measure	Presently there does not exist a formal program
Rome, GA	Statistic show overall education programs do work	Wee Tot-Fire Stop; volunteer basis; teachers use it to teach in the community

APPENDIX F

LISTING OF SIMILAR SIZE FIRE DEPARTMENTS

BY POPULATION SERVED

Appendix F

Departments Serving Similar Size Populations

(15,000 – 50,000)

1. Albany, Oregon
2. Stillwater, Minnesota
3. Hagerstown, Maryland
4. W. Saint Paul, Minnesota
5. Washington Township, Indiana
6. Prattville, Alabama
7. Plain Township, Ohio
8. Riverdale, Georgia
9. The Villages, Florida
10. Marietta, Georgia
11. Waycross, Georgia
12. Manitowoc, Wisconsin
13. Pelham, Alabama
14. Moline, Illinois
15. Muscatine, Iowa
16. Valdosta, Georgia
17. Union City, Georgia
18. Allen Park, Michigan

APPENDIX G

LISTING OF SIMILAR FIRE DEPARTMENTS

BY NUMBER OF PERSONNEL

Appendix G

Departments with Similar Size Staffing

(30 paid personnel – 71 paid personnel)

1. Albany, Oregon
2. Hagerstown, Maryland
3. Washington Township, Indiana
4. Plain Township, Ohio
5. Riverdale, Georgia
6. The Villages, Florida
7. Martinez, Georgia
8. Manitowoc, Wisconsin
9. Pelham, Alabama
10. Moline, Illinois
11. Muscatine, Iowa
12. Union City, Georgia
13. Allen Park, Michigan

APPENDIX H

ACTION PLAN

Appendix H

CITY OF LAGRANGE FIRE DEPARTMENT
PRESCHOOL FIRE SAFETY EDUCATION INITIATIVE

ACTION PLAN

The following is a recommended plan of action for the implementation of a preschool fire safety education program in the LaGrange community. This plan is based upon research, personal interviews and information obtained from other fire departments with similar programs.

1. **Obtain Organizational Commitment.**

The LaGrange Fire Department must be committed to the preschool program in order to assure success. Commitment will be sought first from the chief of the department, and then from chief officers, and down through the ranks. This commitment will be necessary in order to secure the appropriate resources and personnel to make sure this is a lasting program, and that it is successful.

2. **Develop an Advisory Group**

Community risk reduction is best done by a group working together. Since interviews have been conducted, the involvement of those individuals will be essential in this group. These professionals include representatives from the Headstart Center, a private child care center the public school system, a non-profit center, and a state agency that oversees training for childcare professionals. This group will also include a fire department representative. Individuals from these organizations have already demonstrated their support for this program and will be a good group to act as a catalyst in the community.

3. **Determine appropriate curriculum**

This will be the task of the advisory group. Copies of published curricula will be made available for this group's expert review, and a decision will be made to accept one. There should be a logical choice from the curricula that have been identified by research.

4. **Obtain funding sources**

The fire department will be the main fundraising source for this program. Funds will for the curriculum and supporting activities and materials will be sought from local civic groups, local grant sources, state and local foundations, and federal organizations. Fire department funds will also be appropriate if approved.

5. **Advertise the Program**

This step can be handled through local media, and agencies that support childcare training, such as Childcare Resource and Referral and the local Extension Office. Mailings will be sent to every childcare and pre-kindergarten facility in Troup County, explaining the program and seeking their voluntary participation in the program

6. **Schedule and Conduct Teacher Training**

Once the centers that are interested in participating have been identified, in-service training for the participating teachers can commence. These will be held at the convenience of the school or center, and we will seek sponsor locations where this training can be held. The teachers will be given copies of the curriculum and supporting materials, and will be trained in the concepts and components of the curriculum. They will also be trained in the use of any evaluation tools that have been developed, or come as a part of the curriculum package.

7. **Schedule Kick-Off Events for entire families**

In order to involve the whole family, it will be important to inform them of the educational program. It is important to the success of this educational effort that the skills and concepts taught at school be reinforced at home. Most centers and schools already have some form of parent nights, and others have mandatory parent meetings. This kick-off could be incorporated into those already existing dates, and some type of snack meal could be served.

8. **Implement curriculum**

The teachers will then begin teaching the curriculum as trained. The fire department will monitor and will provide support for the center or the teachers as requested.

9. **Evaluate results of educational effort**

This evaluation will be important if the program is to continue. Evaluation of the program will include teacher comments about the curriculum itself (ease of use, effectiveness, etc.) and their evaluation of the students' knowledge. They will be encouraged to use the forms provided to record observations and anecdotal stories for future review by the advisory group.