DEVELOPMENT AND FIELD TESTING OF THE ELEMENTARY SCHOOL ACCESSIBILITY CHECKLIST

by

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Special Education Administration

(ABSTRACT)

P.L. 101-476 (IDEA) mandates the educational inclusion of students with disabilities in the least restrictive environment. Leaders in the field of special education support the inclusion of students with disabilities in neighborhood schools, and many school divisions now indicate that they are using an inclusive model. In such programs appropriate inclusion of students is to take place in school and community recreation programs, academics, art, music, industrial arts, consumer and homemaking education, vocational education, physical education, at meals and recess. Education is to take place in the school the child would attend if he or she was not disabled. Educational technology must be provided to increase, maintain, or improve the functional capabilities of children with disabilities. If schools are to follow these statutes, then total school and program accessibility must be addressed.

Research and development methods used in this study

include: (1) a survey of school divisions in Virginia to determine: size of division, disabilities categories in the division, if an inclusive model is being used in the division's elementary schools, existence of a written policy on inclusion; (2) development of the Elementary Accessibility Checklist; (3) review of the instrument by experts in school facilities and elementary curriculum; (4) field testing of the Elementary Accessibility Checklist in six elementary schools in Virginia (small, medium, large divisions using an inclusive model and small medium, large division not using an inclusive model); (5) final review of the instrument by expert panel and participating school principals; (6) final revision of the Elementary Accessibility Checklist.

The results of this study should provide an indication of the number of school divisions in Virginia using an inclusive model in elementary schools, and the number of divisions that support the inclusive model with written policy. The accessibility checklists developed will be useful to all elementary schools to determine their level of accessibility, suggest needed modifications in school facilities and programs.

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TABLE OF CONTENTS

ABSTRACT ii

ACKNOWLEDGEMENTS iv

TABLE OF CONTENTS v

LIST OF FIGURES viii

LIST OF TABLES ix

CHAPTER

1 INTRODUCTION 1

Statement of the Problem 10

Purpose of the Study 11

Significance of the Study 12

Limitations of the Study 13

Research Questions 13

Definition of Terms 15

2 INTRODUCTION 20

Review of the Literature 20

Obstacles to Inclusion 23

Legislation Related to Inclusion 25

Physical Accessibility 25

Curricular Accessibility 28

Extra-curricular Accessibility 30

Field Trip Accessibility 32

Technology Accessibility 35

Summary 35

Survey Development 36

Development of An Educational Program Review Instrument 38

Field Testing of the Review Instrument . . 40

3 METHODOLOGY 42

Discrepancy and Case Study Models of Evaluation . . 42

Study Description 43

Section One 44

Accessibility Checklist Design 44

Checklist Development 45

Section Two 52

Choice of Schools Included in the Study 52

Section Three 53

Case Studies 53

Section Four 54

Section Five 57

Data Analysis of Field Test Information 57

4 RESULTS 59

Section One 61

Survey of Virginia School Divisions 61

Section Two 69

Development and Initial Review of the Checklist 69

Section Three 74

Field Test Part One 74

Section Four 83

Field Test Part Two 83
Section Five 92
Final Instrument Review and Revision 92
5 DISCUSSION, CONCLUSION, AND RECOMMENDATIONS 96
Summary 96
Discussion 97
Conclusions 101
Suggestions for Further Research 104
REFERENCES 105
APPENDICES 117
RESUME 284

LIST OF FIGURE

PAGE

1. Essential Elements of Education 26

LIST OF TABLES

		PAGE
	Summary of Initial Survey Results	63
	Results of Follow-up Letter	70
1.	Summary of Schools 1, 2 and 3	77
2.	Summary of Schools 4, 5 and 6	86

CHAPTER 1

Introduction

Special education in the United States is currently undergoing a paradigm shift. Beginning in 1977 students requiring the services of special education were often served in pull out programs that may or may not have been provided in their neighborhood school. By the mid to late 1980s many educators began to believe that such pull out programs were not in the best interest of the children being served by special education, and that these programs did not provide education in the least restrictive environment (Bates, Renzaglia & Wehman, 1981; Stainback, Stainback & Hatcher, 1983; Atkins, 1987; McDonnell, Hardman, Hightower & Keifer-O'Donnell, 1991; McDonnell, McDonnell, Hardman & McCune, 1991). Educators began to believe that the systematic instruction of students with disabilities in integrated settings would help ensure their normalized community participation (Gartner & Lipsky, 1987). Studies supporting this belief indicated that students served in integrated programs showed greater advances in rates of Individual Education Plan goal completion, gains in communication and social skills, and more appropriate and frequent interactions with peers (Stainback et al., 1983; Brown, Ford, Nisbet, Sweet, Donnellan & Gruenewald, 1983;

Stainback, Stainback and Stainback, 1988; Mittler, 1992). These advances occurred because educators began to use various adaptations and accommodations within general education classrooms. Curriculum materials were adapted that were consistent with a student's chronological age (Bates et al., 1981). Students with disabilities are being supported by buddy systems, peer tutoring and the use of both adult and student volunteers (Mittler, 1992; Brown et al., 1983). Some of the strongest advocates of this "inclusive model" believe no students, including those with disabilities, should be relegated to the fringes of the school by placement in segregated wings, trailers, or special classes (S. Stainback & W. Stainback, 1992).

Local efforts to provide education in the least restrictive environment were supported on a national level by the Office of Special Education and Rehabilitative Services which cited such education as one of its top priorities for the future (Stainback, Stainback & Stainback, 1988). Such efforts are also supported by recent court opinions. The Honorable John F. Gerry, Chief Judge of the U.S. District Court of New Jersey has declared that "Inclusion is a right, not a privilege for a select few" (Davis, 1992). Such a view of least restrictive environment is not new. In Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania, 334 F.

Supp. 1257 (E.D. Pa. 1971), the court declared that "placement in a regular public school is preferable to placement in a special public school class" at 1260. Mills v. Board of Education of District of Columbia, 343 F. Supp 866 (D.D.C. 1972) also stressed that "placement in a regular public school class with appropriate auxiliary services is preferable to placement in a special education class". In the even stronger statement of support for an least restrictive environment model of education, Roncker v. Walter, 700 F.2d 1058 (6th Cir. Feb. 23, 1983) concluded, "even in a case where the segregated facility is considered superior, the court should determine whether the services which make the placement superior could be feasibly provided in a non-segregated setting. If they can, placement in the segregated school would be inappropriate under the Act (P.L. 94-142).", at 1063.

Support for the least restrictive environment model of education is also found in special education regulations. P.L. 94-142 and its amendments addressed in P.L. 101-476 Individuals with Disabilities Education Act (IDEA) mandate certain provisions that would lead to inclusive practices for students with disabilities. These mandates are included in the Department of Education's Regulations for 34 CFR Parts 300 and 301 Assistance to States for the Education of Children with Disabilities Program and Preschool Grants

for Children with Disabilities; Final Rule (September 29, 1992):

300.16	(9) (iii)	Recreation programs in schools and community agencies
300.222	(a)	Full educational opportunity for all children with disabilities, aged birth through 21
	(b)	A detailed timetable for accomplishing this goal
300.227	(a)	To the maximum extent possible, the LEA provides special services to enable children with disabilities to participate in regular education programs
300.305		Children with disabilities will have available to them the variety of educational programs and services available to nondisabled children in the area served by the agency, including art, music, industrial education, consumer and homemaking education, and vocational education
300.306	(a)	Each public agency shall take steps to provide nonacademic and extracurricular services and

activities in such a manner as is necessary to afford children with disabilities an equal opportunity for participation in those services and activities

(b) Services and activities may include counseling services, athletics, transportation, health services, recreational activities, special interest groups or clubs sponsored by the public agency]

300.307 (a) Physical education services, specially designed if necessary, must be made available to every child with a disability

(b) Each child with a disability must be afforded the opportunity to participate in the regular physical education program available to nondisabled children unless-

(1) The child is enrolled full time in a separate facility; or

(2) The child needs specially designed physical education, as prescribed in the IEP

300.308		Ensure that assistive technology devices or assistive technology services, or both, are made available to a child with disabilities
300.550		That special classes, separate schooling or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily
300.552	(a)	The educational placement of the child is as close as possible to the child's home
	(b)	Unless the IEP of a child with disabilities requires some other arrangement, the child is educated in the school he or she would attend if nondisabled

300.553 In providing or arranging for the provision of nonacademic and extracurricular services and activities, including meals and recess periods, each public agency shall ensure that each child with a disability participates with nondisabled children in those services to the maximum extent appropriate for the needs of the child.

There is also support for a least restrictive environment education model in federal legislation that does not specifically address public schools. Section 504 of the Rehabilitation Act of 1973 also addresses requirements for inclusion in schools. The act mandates that "no otherwise qualified individual with handicaps in the United States shall, solely by reason of her or his handicap, be excluded from the participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal assistance" (29 U.S.C. Sec 794).

The Americans with Disabilities Act of 1990 (ADA) also makes provisions for the inclusion of all persons with disabilities in activities provided by public entities. The Act states that "no individual with disabilities shall, by reason of disability, be excluded from participation in or

be denied benefits of the services, programs, or activities of such public entities".

If special education in the U.S. is going to move toward a less restrictive model, as many educators, the courts, and federal laws suggest, then it will be up to local school districts to develop an awareness of accessibility needs, and make their programs accessible to all students. The Federal Architectural and Transportation Barrier Compliance Board (1992) has developed a guide, "Recommendations for Accessibility to Serve Physically Handicapped Children in Elementary Schools". While this guide is extremely comprehensive, it does not provide a simple checklist that can be used by administrators, without formal architectural training, to assess their ground, building, classroom, technology, curricular, or extra-curricular accessibility.

During the 1990-91 school year, approximately 94 percent of students with disabilities, age 3-21, received their educational and related services in regular school buildings with students without disabilities. At the classroom level, 32.8 percent were served in regular classrooms, 36.5 percent were served in resource rooms, and 25.1 percent were served in separate classes (U.S. Department of Education, 1993, p.21).

For this education of students with disabilities to be

considered least restrictive, it must take place in school and community recreation programs, academics, art, music, industrial arts, consumer and homemaking education, vocational education, physical education, and at meals and recess. It occurs in the school the child would attend if he or she was not disabled. Educational technology is provided to increase, maintain, or improve the functional capabilities of children with disabilities. To determine if schools using the inclusive model are providing all these elements of education as mandated by IDEA, Section 504 and ADA, then total school and program accessibility must be addressed.

Currently more elementary schools are moving toward a less restrictive education model for all students with disabilities. States reported that 74.7% of children age 6-11 with disabilities received their education either in regular education classrooms, or in regular education classrooms with resource room assistance. This percentage drops to 64.6% for students with disabilities age 12-17 (U.S. Department of Education, 1993, p. A-79 and A-101). In schools with programs for students with physical (mobility) disabilities 53.6% of students age 6-11, and 52.6% of students age 12-17 received their education in general education environments (U.S. Department of Education,1993, p. A-93 and A-115). As this occurs, school

leaders must be aware of the need for full physical and program accessibility.

A review of school divisions in Virginia reveals that 88.5 percent of students age 6-11 with physical (mobility) disabilities are receiving their education in general education classrooms, resource rooms and separate classrooms, the remaining 11.5 percent of students receive their education in separate public and private facilities, or through homebound instruction (U.S. Department of Education, 1993, p. A-93). Since these classrooms may not be located in the child's home school, it cannot be assumed that the 53.6% receiving their education in regular classrooms and resource rooms are participating in inclusive programs, but this may be the case in many instances.

Statement of the Problem

While the Recommendations for Accessibility Standards for Children's Environments were prepared by The Center for Accessible Housing at North Carolina State University for The Architectural and Transportation Barriers Compliance Board in January, 1992, a simple checklist for the evaluation of accessibility based on these guidelines has not been available to elementary schools. It has therefore been very difficult for school divisions to develop an awareness of accessibility needs, assess their current physical accessibility, and plan for its improvement.

Recommended standards for accessibility to curricular, extracurricular, technological or field trip activity environments have not been developed. Such a checklist would assist schools as they develop an awareness of accessibility needs in these areas, and in their review of accessibility to these program areas.

Purpose of the Study

The purpose of this study is to develop a simple, non-technical checklist that can be used by school administrators to evaluate their current level of accessibility to school buildings, grounds, curricula, technology and extra-curricular activities, and increase the accessibility awareness of staff, board members and school patrons. This checklist will not be intended to substitute for an engineering design study of school facilities. The development process will involve a survey of all school divisions in Virginia to provide data on the percentage of divisions currently using inclusive and non-inclusive educational models. It is important to field test the instrument in both educational settings, to assure its usefulness to educators using either model of special education. The survey will be followed by on-site field tests of a physical and program accessibility checklist designed to evaluate accessibility for students with

physical (mobility) disabilities, in Virginia elementary schools. The field tests will be used to:

(a) to develop the checklist;

(b) determine the useability of the checklist by building administrators; and

(c) determine the comprehensiveness of the instrument.

Significance of the Study

This study will develop building and program accessibility checklists, and field test these checklists in small, medium and large school divisions that are (a) using an inclusive model for students with physical (mobility) disabilities, and (b) not using an inclusive model for students with physical (mobility) disabilities. The accessibility evaluation instrument developed will be of use to schools having a desire to determine their accessibility strengths and weaknesses, and increase their awareness of the accessibility needs of students with physical (mobility) disabilities. The personnel of the six schools involved in this study, and those using the survey independently will be able to use the information gained from the study to develop short and long range plans for the improvement of building and program accessibility and the development of programs in the least restrictive environment for students with physical (mobility) disabilities in the life of the school.

Limitations of the Study

This study was based on a sample of elementary schools in Virginia. Generalization of the results could only be made to the state in which the study took place. Generalization to other states which may regulate inclusion and accessibility in a different manner would be inappropriate.

Research Questions

A survey of all school divisions in Virginia will be used to answer the following questions:

1. Which school divisions in Virginia are serving the following categories of students with disabilities: learning disabilities, emotionally disturbed, physically (mobility) disabled, multiply disabled, hearing impaired, visually impaired, mildly mentally disabled, moderately mentally disabled, severely mentally disabled, autistic, traumatic brain injured, attention deficit/hyperactive disordered?
2. Which school divisions serve students with physical (mobility) disorders in inclusive models?
3. Which school divisions serve students with physical (mobility) disabilities in a non-inclusive model?

The field testing of the Accessibility Checklists in six school divisions (large, medium and small school divisions using an inclusive model with students with physical (mobility) disabilities, and large medium and small school divisions not using an inclusive model with students with physical (mobility) disabilities) in Virginia will be used to answer the following questions:

1. Can a simple checklist be developed that can be used without expert assistance to determine the level of physical and program accessibility to students with physical (mobility) disabilities in elementary schools?
2. Do the administrators involved in the field test feel that the information provided by such an accessibility review is useful in:
   (a) determining levels of accessibility;
   (b) doing short and long range planning for building improvements; and
   (c) increasing their awareness of federal accessibility guidelines?

The accessibility evaluation conducted in six elementary schools will be used to determine the level of accessibility for students with physical (mobility)

disabilities in the following areas:

1. Physical accessibility to all buildings and grounds.
2. Accessibility of core and optional curricular areas.
3. Accessibility of extra-curricular activities.
4. Accessibility of educational technology available in the school.
5. Accessibility to field trip environments.

Definition of Terms

1) **Inclusive Program Model -**

Inclusion means that students with disabilities are educated in supported, heterogeneous, age-appropriate, and natural and student-centered classroom, and school and community environments for the purpose of preparing them for full participation in a diverse and integrated society. The practice of inclusion transcends the idea of physical locations and incorporates basic values that promote participation, friendships and interactions in all aspects of education and community life (CASE Newsletter, April-June 1993).

2) **Physical Accessibility** - In general accommodations must be made to remove barriers that are structural in nature. These may include:

(1) Installing ramps

(2) Making curb cuts in sidewalks and entrances

(3) Repositioning shelves

(4) Rearranging tables, chairs, vending machines, display racks, and other furniture

(5) Repositioning telephones

(6) Adding raised markings on elevator control buttons

(7) Installing flashing alarm lights

(8) Widening doors

(9) Installing offset hinges to widen doors

(10) Eliminating a turnstile or providing an alternative accessible path

(11) Installing accessible door hardware

(12) Installing grab bars in toilet stalls

(13) Rearranging toilet partitions to increase maneuvering space

(14) Insulating lavatory pipes under sinks to prevent burns

(15) Installing a raised toilet seat

(16) Installing a full-length bathroom mirror

(17) Repositioning the paper towel dispenser in a bathroom

(18) Creating designated accessible parking spaces

(19) Installing an accessible paper cup dispenser at an existing water fountain

(20) Removing high pile, low density carpeting

(Federal Register, July 26, 1991, 36.304 Removal of barriers).

3) **Curricular Accessibility -**

(1) Medium of Instruction -

a. Sensory Substitution - materials provided in other sensory modes such as audiotape, voice synthesis, models, graphic aids, films, filmstrips, videotapes, videodiscs, and computer simulations.

(2) Textbook Instruction -

a. Textbook Substitutions - inquiry, visual displays, problem solving, simulations, real world scenarios, role playing, and physical manipulation.

(3) Adapted Materials

a. Modifications - adaptations in pace, depth, complexity, and coverage (Guerin, 1991).

4) **Extra-curricular Activities** - Such activities may include but are not limited to counseling services, athletics, transportation, health services, recreational activities, special interest groups or clubs sponsored by public agencies(34 CFR Parts 300 and 301, 1992)

5) **Technology Accessibility** - The availability of any technology that would allow the student to participate more fully in the general education classroom. This availability may require the modification of technology being used in the classroom. Examples of technology modification may include:

(1) Adapted computer keyboards

(2) Adaptations to equipment such as televisions, VCRs, tape players, and science equipment.

6) **Field Trip Accessibility** - The review of field trip sites prior to the activities that will take place.

Accessible sites will provide for access to buildings, equipment, bathrooms and eating areas.

7) **Supplementary Aids and Services** - Modification to the regular education program made in an effort to include students with disabilities. Examples of these aids and services include shortened assignments, note taking assistance, visual aids, oral test, and frequent breaks. These modifications are geared to the child's individual needs (Weatherly, 1992).

Chapter 2

Introduction

This chapter will first review the literature concerning the evolution of the least restrictive environment (inclusive) model of education for students with disabilities. Secondly, there will be a review of survey development. This will be followed by a literature review on the development of, and field testing of an educational program review instrument.

Review of the Literature

Inclusion in the Least Restrictive Environment

Beginning in 1977 with the full implementation of P.L. 94-142, and continuing with its amendments in P.L. 101-476(IDEA), schools were mandated to provide a free, appropriate, public education for all students, in the least restrictive environment. Traditionally, the concept of least restrictive environment was considered to be satisfied if a student's placement was anywhere on the full continuum of services represented by Deno's Cascade System (Deno, 1970). The determination of which place on the continuum was appropriate for the individual student was based on the Individual Education Program. During the late 1970s and the early to mid 1980s, least restrictive environments for students with disabilities included residential schools,

special day schools, special classes, and pull-out programs aided by itinerant and resource teachers (Lerner, 1971).

By the mid-1980s a paradigm shift began, and educators questioned if separate programs for students with disabilities were really best (Brown et al., 1979; Certo, Haring & York, 1984; Lilly, 1988; Stainback & Stainback, 1984; Will, 1986). Stainback and Stainback (1984, p.12) suggested, "it is time to stop developing criteria for who does and does not belong in the mainstream and instead turn the spotlight to increasing the capabilities of the regular school environment, the mainstream, to meet the needs of **all** students". Fuchs and Fuchs(1994) suggest that it is time to unite a bulkinized educational system. This would circumvent the need for an eligibility process, used only to pigeonhole children into educationally questionable classifications. Atkins (1987, p.3) agreed that "public education in the community and placement in neighborhood schools are necessary to meet the least restrictive environment provisions of P.L. 94-142". While few leaders in education argue that all students with disabilities should spend 100% of their school time in general education classrooms (Forest, 1987; Forest, 1988; Taylor, 1988) many do believe that all students should be based in their age appropriate, neighborhood school (Brown et al. 1983; Brown, Schwarz, Udvari-Solner, Kampscholer, Johnson, Jorgenson, &

Gruenewald, 1991; Ford & Davern, 1989; McDonnell, McDonnell, Hardman & McCune, 1991; Sailor, 1989; Sailor, Anderson, Halvorsen, Doering, Filler & Goetz, 1989; Stainback, Stainback & Forest, 1989; Vandercook, York & Forest, 1989). To be "based in refers to being a member of a real class, where and with whom you start your school day, you may not spend all your time with your class, but it is still your group and everyone knows it" (Brown et al., 1991, p. 40). The rationale for education in the least restrictive environment has been based on a number of beliefs. These include, while based in general education, students with disabilities having the opportunity to be involved with the best language, social, dress and behavior models. They will be "insiders" who go out for short periods of time, rather than "outsiders" (Brown et al. 1991; Janney & Meyer, 1990; Meheady & Algozzine, 1991; Stainback, Stainback & Hatcher, 1983). Such increased opportunities for interaction with peers cannot be overemphasized. Such interactions: (a) enhance appropriate social skills, (b) foster acceptance of persons with disabilities, (c) improve postschool transitions to employment and community life, and (d) provide opportunities to develop friendships between students with disabilities and their peers without disabilities (Atkins, 1987; Davis, 1992; McDonnell et al., 1991; Stainback, Stainback & Hatcher, 1983). Other

advantages students with disabilities will experience while receiving their education through the neighborhood school model include:

> (a) They are likely to engender more tolerant citizens in a pluralistic society, (b) they facilitate use of the more relevant instructional environments, (c) they enhance family access to their child's school, and (d) they facilitate the development of a wide range of social relationships with peers without disabilities (McDonnell et al., 1991, p. 35; Snell, 1991, p137-138).

Obstacles to Inclusion in the Least Restrictive Environment

If a least restrictive environment program model is best for students with physical (mobility) disabilities, then it is up to the neighborhood schools to provide an appropriate education in that setting. This will not mean just installing a ramp at the front door and assist rails in the bathrooms, "it does little good to mainstream a student only to have the group exclude the individual beyond observation of the activity" (Vergason & Anderegg, 1991, p. 4). Many educators believe they lack the training, or orientation to provide an effective education for students with disabilities (Davis & Meheady, 1991; Gans, 1987; Gersten & Woodward, 1990; Lilly, 1988; Meheady & Algozzine,

1991). In situations where the inclusion of students with disabilities is taking place, observers report that the classroom activities for these students involve simple caregiving and nonfunctional academic tasks (Atkins, 1987). The inclusion of students with disabilities is taking place in a piecemeal fashion. Children are simple add-ons to existing programs whose structure and values have not been altered (Stainback, Stainback, Courtnage, & Jaben, 1985). For education in the least restrictive environment to really take place, students with disabilities must ride the school bus, attend school assemblies and eat lunch with their nondisabled peers (Bates, Renzaglia & Wehman, 1981). They must also be able to participate in school activities such as recess, field trips, and library and technology based programs. Today many more students with disabilities are attending their neighborhood school, but their inclusion in the school's programs may be limited by: (a) lack of written policy or program plan supporting inclusion (b) lack of accessibility to areas of the building, certain courses in the curriculum, extra-curricular activities sponsored by the school and community organizations, technology available to nondisabled students, and educational field trips (Forest, 1987).

A collaboration model is important for the effective implementation of programs in the least restrictive

environment. Included in this model must be classroom, building, grounds, and technology modification supportive of inclusive education in the least restrictive environment as indicated in Figure 1 (Simpson & Myles, 1990).

Legislation Related to Inclusion in the Least Restrictive Environment

Lack of access to programs must be addressed by schools using the inclusive model for the education of students with disabilities, not only because they are part of the child's least restrictive environment as required in IDEA, but also due to other legislation that provides the right to access to persons with disabilities. "Section 504" of the Rehabilitation Act of 1973 established that school districts are responsible for providing access to their entire educational programs for disabled children (Allen, Beer, Kerpen, Marshall & Steinfeld, 1981). The Americans with Disabilities Act of 1990 mandates that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity" (Hawkins, 1990, p. 12).

Physical Accessibility

"Surveys report that persons with health problems that prevent them from participating fully in work, school, or

Essential Elements of Education

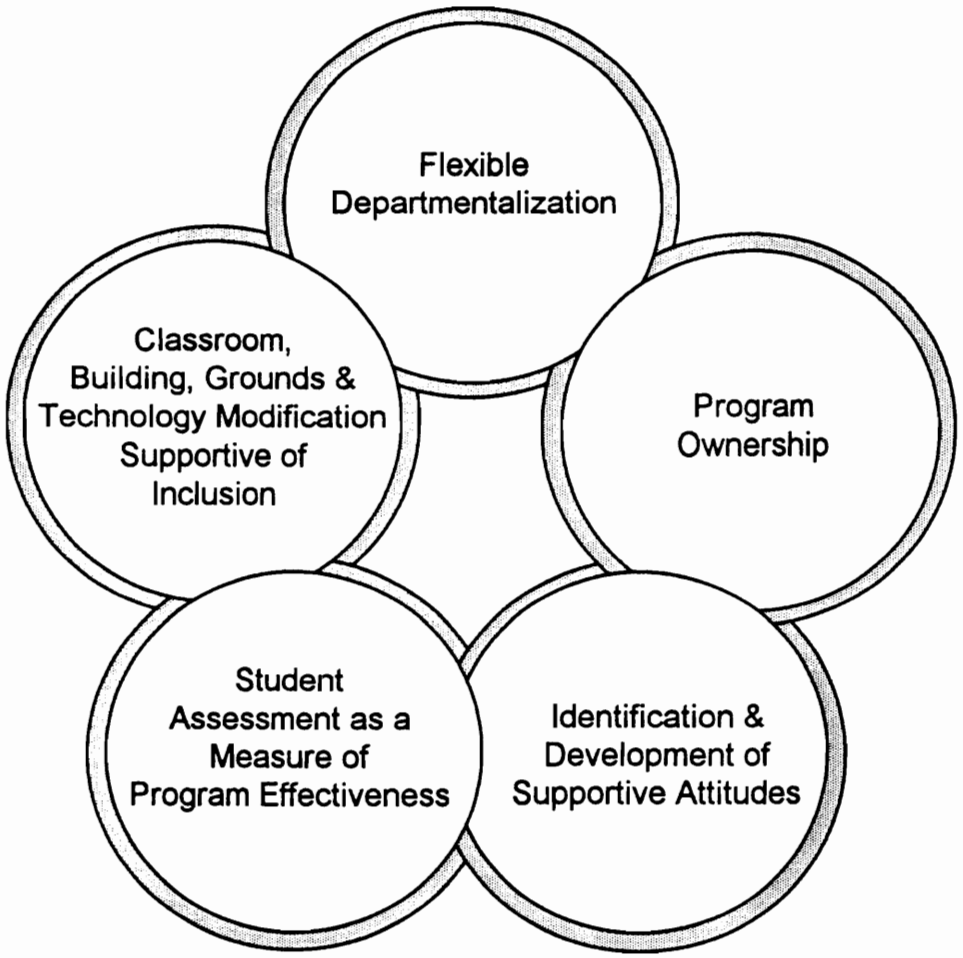

Figure 1

Adapted from Essential Elements of General Education Collaboration Model (Simpson & Myles, 1990)

other activities may equal as much as 15 percent of all Americans 16 and older, or approximately 27 million Americans" (ACIR, 1989). These surveys do not consider children under the age of 16. While there are recent reports available about the need for accessibility, little study of school accessibility has been done in the past ten years. Most reports quote accessibility levels based on the 1980 Civil Rights Survey of Elementary and Secondary Schools. Zill (1985) reported schools with:

- Accessible building entrances 72.9%
- Accessible toilet stalls 54.3%
- Accessible science labs 23.6%
- Accessible classrooms 64.9%

Written materials are available to help local schools provide accessibility to school buildings, classrooms, bathrooms, cafeterias and libraries. The following sources are suggested in Recommendations for Accessibility Standards for Children's Environments (1992):

Levine, M. and Nimowitz, S. (1976). A Playground for All Children.

New York State (1981). Making School Programs Accessible to the Handicapped: A Guideline for New York State School Districts.

People's Housing, Inc. (1981). Accessible Elementary Schools: A Renovation Planning and Design Manual.

Torrice, A.F. and Logrippo, R. (1989). In My Room: Designing For and With Children.

Yuker, H.E. (1968). The Modification of Educational Equipment and Curriculum for Maximum Utilization by Physically Disabled Persons.

In an attempt to provide a complete guide to physical accessibility for children's environments, the United States Architectural and Transportation Barriers Compliance Board (1992) has issued Recommendations for Accessibility Standards for Children's Environments. This guide was developed by first reviewing the existing standards, guidelines and building codes that pertain to accessibility for children. The factors affecting children's accessibility such as fine motor ability, upper body strength, extent of reach, stature, stamina, balance and skill level in negotiating an environment were also taken into consideration as the guidelines were developed, and should be carefully integrated into any evaluation of physical accessibility to elementary schools.

Curricular Accessibility

When evaluating a school's curricular accessibility, it is important to keep the physical accessibility guidelines in mind as accessibility to each curricular area is considered. A review of curricular options in three Virginia school divisions was conducted (Appendix A) to

determine the current curricular content of elementary school programs. Divisions represented during the interviews included:

Metro-Washington D.C. - two elementary schools

Southwest Virginia - thirteen elementary schools

Tidewater - eighteen elementary schools

These school divisions were selected because they represented urban and rural schools, as well as a small, medium and large school division. The elementary principals interviewed identified the following required academic courses currently included in the elementary curricula (Appendix B):

Language Arts -

Reading, Spelling, Writing, Library Skills

Mathematics

Science and Health

Social Studies

The following optional academic courses are offered in the elementary schools:

English as a second language

Career Development

Computer Assistance Programs including:

a. Introduction to Technology

b. Computer Programming

c. Writing to Read Lab

Core non-academic courses in Virginia elementary schools include:

Physical Education

Music

Art

Programs for the gifted and talented

Cultural Arts

(D. Bushrod, personal communication, May 5, 1993; E. Porter, personal communication, May 5, 1993; R. Van Dyke, personal communication, May 10, 1993). A review of curricular options nationally revealed similar core academic courses (Bennett, 1988; Georgia State Department of Education, 1985; North Carolina State Board of Education, 1986; Ohio State Department of Education, 1983; San Diego Schools, 1983; Texas Education Agency, 1987; Utah State Office of Education, 1987; Virginia Department of Education, 1981).

Extra-Curricular Accessibility

Access to extra-curricular programs sponsored by the school and by community organizations is important to students involved in inclusive education programs. In an inclusive model, students with disabilities should have access to all programs available to nondisabled students within their neighborhood schools. When reviewing the accessibility of such programs, one must keep in mind the

physical barriers that may keep students from participating in these programs, as well as problems such as transportation and material accessibility. Interviews with administrators in Virginia Elementary schools revealed a wide variety of programs offered by the school and community organizations. These programs included:

School sponsored programs -

- Odyssey of the Mind
- Math Superstars Program
- Health and Nutrition Program
- Potomac Challenge
- Wise Choices Program
- French Language Instruction
- Before and After School Program
- Latch Key Kid Program
- DARE
- School Newspaper
- Student Council

Activities Programs

- Cheerleading
- Arts and Crafts
- Stunts and Tumbling

Clubs

- Just Say No Club
- Public Address Club

Civic Sponsored Groups

4-H

Girl Scouts

Boy Scouts

Recreation Programs

Little League

a. teeball

b. softball

c. baseball

Recreation Department

a. soccer

b. volleyball

c. basketball

d. gymnastics

e. dance

(D. Bushrod, personal correspondence, May 5, 1993; E. Porter, personal correspondence, May 5, 1993; R. Van Dyke, personal correspondence, May 10, 1993).

Field Trip Accessibility

Field trips include one time visits to a site, to observe the activities that take place there, or to observe or take part in a special event or presentation. As field trips are planned that will include students with disabilities, it is important for those planning the trips to consider the following accessibility issues: (a) Are the

building and grounds of the site physically accessible? (b) Will any restaurants or picnic areas be physically accessible? (c) Will physically accessible bathrooms and drinking fountains be available at the site? (d) Will there be provisions for seating and accommodations at the site of activities such as movies, concerts, or plays for persons with physical (mobility), visual and auditory disabilities? Schools in Virginia should consider these issues prior to field trips such as those identified during interviews with principals D. Bushrod, E. Porter and R. Van Dyke (May, 1993):

Historic Sites -

- Washington D.C.
- Fredricksburg
- Jamestown
- Lexington
- Monticello
- Gettysburg
- Smithfield Plantation
- General Assembly in Richmond

Recreational Activities -

- Kings Dominion
- Zoo
- Day Camp
- Parks

Work Sites

- Fire Department
- Police Department
- Hospital
- Courts
- Business Partners
- Doctor and Dentist Office
- Farms
- Orchard
- Restaurants
- Banks
- Naval Base
- Virginia Tech

Artistic Performances

- Live Theater
- Movie Theater
- Circus

Virginia Points of Interest

- Dixie Caverns
- Luray Caverns
- Harbor and Aquarium
- Museums

Technology Accessibility

The availability and use of technology is quickly becoming a very important part of the elementary education of students in Virginia. For students involved in inclusive programs, it is important that such technology be accessible. Examples of technologies used in Virginia schools were identified during interviews with D. Bushrod, E. Porter, and R. Van Dyke (May, 1993):

Technology for all Students

Computer - Apple IIE and GS, Mackintosh, IBM Printers, Modems

Video - Camcorders, recorders, televisions, LCD panel for computers and overhead projectors, microscopes

Projectors - film, filmstrip, opaque, overhead

Audio - cassette recorders, record players, microphones

General - copy machines, calculators

Adaptive and Augmentative Devices - Wolf Communication Boards, Franklin Speller, Language Master

Summary

The literature suggests that the paradigm for special education programs has shifted to one of inclusion in the

least restrictive environment for children with disabilities. Therefore, the physical and program accessibility for these students must be evaluated. Schools must provide physically accessible grounds and buildings, and programs including curricular areas, extracurricular activities, technology and field trip experiences, otherwise, such programs will not truly be "least restrictive or "inclusive".

Survey Development

Surveys are the best way to gather data from a population sample. They allow the researcher to gather useful information about:

(1) Attitudes and opinions
(2) Levels of public knowledge
(3) Social and economic characteristics such as income, educational level, and ethnic background
(4) Stated behaviors (what people are doing, or have done in the past, or plan to do in the future)
(5) Relationships between various phenomena, called variables in the language of researchers (Burges, 1976).

As a survey is developed, it is important that the first questions asked be the least difficult, threatening, and personal. In the development of all questions, the

researcher must strive for clarity. It is important to use closed-ended questions whenever possible. Examples - yes-no, ranking, fixed alternatives and multiple choice questions. In the construction of closed-ended survey questions all categories should be exhaustive and mutually exclusive (Burges, 1976; Babbie, 1990, p.141-142).

If the survey instrument developed is to be mailed out, then it should meet established standards. The survey should be:

(1) Neat and attractive

(2) Include a full statement about the research and its purpose

(3) Uncluttered - people respond more frequently to uncluttered three-page surveys than they do to two-page forms with too much ink.

(4) Arranged to ask the most interesting questions first

(5) Be creative

(6) Publicize the fact that the survey is being done

(7) Include a cover letter

(8) Include a stamped, self-addressed return envelop, the stamp used may be a commemorative that will catch the eye of the respondent(Burges, 1976; Fink & Kosecoff, 1980).

Development of an Educational Program Review Instrument

As researchers develop program review instruments they will go through two stages of development. These stages are the *divergent* and *convergent* phases. Each phase is equally important to the development of a comprehensive review instrument (Worthen & Sanders, 1987).

During the divergent stage of instrument development items are selected for inclusion. A comprehensive "laundry list" of potentially important questions, criteria, and issues is developed (Worthen & Sanders, 1987). During the divergent phase it is important to draw from a wide variety of sources knowledgeable about the program area. The researcher must:

(1) Review questions, concerns, and values of stakeholders;

(2) Use a variety of evaluation models, frameworks and approaches;

(3) Review salient issues raised in education and evaluation literature;

(4) Draw relevant criteria from current literature;

(5) Review professional standards, checklists, guidelines, instruments or criteria developed or used elsewhere;

(6) Use the views and knowledge of expert consultants; and

(7) Use the evaluator's own professional judgement (Worthen & Sanders, 1987).

Following the *divergent* phase, the researcher must begin to narrow the information obtained. This will occur during the *convergent* phase of instrument development. This phase must occur because:

(1) There will be budget limitations;

(2) As an evaluation becomes increasingly complicated, it becomes harder and harder to manage; and

(3) The attention span of the intended audience is limited (Worthen & Sanders, 1987).

As a checklist evaluation is designed it must be limited to the scope of those specific aspects of behaviors and situations on which observers can readily agree. There must be a category system that consists of mutually exclusive and exhaustive categories that can be used to classify each and every observation from a single domain (Pedhazur & Schmelkin, 1991). The checklist must be based on a standard by which the program being evaluated is compared. Obtaining such a standard is not usually easy. In most circumstances it has to be created - a job done by the client, assisted by the evaluator, to clarify and make conscious the standard that should govern the activity or object being evaluated (Madaus, Scriven, & Stufflebeam, 1983).

During the development of the evaluation instrument, a workplan should be in place. This workplan includes:

(1) Evaluation questions

(2) Standards

(3) Sources of information

(4) The evaluation instrument

(5) Names of data collectors

(6) Data information needed (Madaus, Scriven & Stufflebeam, 1983, p. 84).

Field Testing of the Review Instrument

The purpose of field testing is to determine:

- Will the instrument provide the needed information, and is it appropriate for the situation being reviewed?
- Will the reviewers be able to use the instrument properly? Will they be able to collect and report the information in the review using the directions given with the instrument?
- Is consistent information collected using the instrument?
- Is the information collected accurate? (Fink & Kosecoff, 1980)?

This chapter has reviewed statutes, regulations and literature pertaining to education programs in the least restrictive environment and the need for accessibility in

such programs. Also discussed were instrument development and field testing. Chapter 3 will describe research methods employed in the study.

CHAPTER 3

Method

Discrepancy and Case Study Models of Evaluation

In an attempt to determine the levels of accessibility of elementary schools in Virginia, the use of the discrepancy model of program evaluation is appropriate. The discrepancy model of program evaluation is based on comparing program performance with pre-established standards (Yavorsky, 1977, pp. 7-80). The information gained from this comparison can be used to decide how to improve the program, or if the program should be maintained or terminated (Worthen & Sanders, 1987, p. 68). The pre-established program standards should be based on legal standards or regulations, current best practices in the field, and a review of literature on the subject areas being evaluated. Following the completion of the discrepancy evaluation, case studies of evaluation sites were done to provide information from the study. Case studies were able to provide information on the elementary schools' inclusive program participants, goals, activities and results (Kosecoff and Fink, 1982, p.82).

As each school was evaluated the five checklists were completed. Each classroom, restroom, and activity area within the school was evaluated on all checklist areas. Under the heading "School", on each checklist area, each

room was given a "yes or no" response. Each classroom was recorded by room number and grade. Each area of the checklist had a "yes or no" response next to the classroom number and grade.

Following the on site field testing of the Accessibility Checklists, a case study summary was provided to the principal, and the division's special education director indicating what areas and programs within the school were or were not accessible to students with physical (mobility) disabilities. Recommendations for improvement of accessibility were made whenever possible.

Study Description

As elementary schools in Virginia move toward a more inclusive model for the education of students with physical (mobility) disabilities, it is necessary to evaluate the discrepancy between accessibility standards and the actual accessibility of the buildings and grounds on which these programs take place, as well as the curricular, extra-curricular, technological and field trip activities in which students with physical (mobility) disabilities are involved. (Yavorsky, 1977, pp. 7-8; Worthen and Sanders, 1987, pp. 68-70). This evaluation provides standards of accessibility in areas of physical accessibility to grounds and buildings, and program accessibility to curricular, extra-curricular, technological and field trip activities. These standards

were compared to actual school situations, and recommendations were made for improvements to overcome any discrepancies.

A five section plan for the evaluation of six elementary schools is presented in this chapter. Section One contains a discussion of the process used to design the accessibility checklists used in the discrepancy evaluation, and the field testing of the instrument. Section Two addresses how schools were be chosen for participation in this study. Section Three provides a description of the case studies that were completed following the evaluation of each of the six elementary schools. Section Four contains a review of the evaluation process used with principals to determine the appropriateness, usefulness, and comprehensiveness of the accessibility checklists. Section Five contains a review of analysis methods that will be used to analyze field test data.

SECTION ONE

Accessibility Checklist Design

Five separate checklists were designed that provided standards of accessibility in areas of: (1) physical access to grounds and buildings, (2) curricular access, (3) extra-

curricular access, (4) technological access, and (5) field trip access. Each checklist was based on standards required by state and federal regulations.

Checklist Development

Five checklists were developed to determine the level of accessibility to elementary students with physical (mobility) disabilities. The determination of items to be included in the checklists was made in the following manner:

Physical Accessibility Checklist

1) Review of Part III Department of Justice 28 CFR Part 36 Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities; Final Rule.
2) Review of United States Architectural and Transportation Barriers Compliance Board's Recommendations for Accessibility Standards for Children's Environments.
3) Following the review of the preceding documents, a checklist was compiled including every component of the regulations and recommendations.
4) The complete checklist was reviewed by Dr. Glen Earthman, Virginia Tech, specialist in school facility design, and Dr. Robert Dryden, engineer.

5) Following Dr. Earthman's, and Dr. Dryden's recommendations, the checklist was revised to include only those items that could be evaluated by a building administrator without formal training in architecture or engineering.

Curricular, Extra-Curricular, Technology and Field Trip Accessibility Checklists

1) A review of the literature on curricular, extra-curricular, technological and field trip options in the United States was conducted.
2) A review of curricular, extra-curricular, technological and field trip options in various elementary schools in Virginia was conducted. Schools involved in the review were chosen based on location and small, medium and large sizes of the school divisions.
3) Checklists were compiled for each area that could be used to evaluate all curricular, extra-curricular, technological and field trip areas in Virginia elementary schools.
4) The various checklists were reviewed by Dr. Josiah Tlou, Virginia Tech, specialist in elementary curriculum and program evaluation.
5) Following Dr. Tlou's recommendations, revisions were made in the various checklists.

Physical Accessibility Checklist

All areas of the school buildings, school grounds and the access areas to these areas were considered and included in the *Physical Accessibility Checklist* (Appendix C). The building and building access portion of this checklist was developed based on the Department of Justice's Final Rule on Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities (28 CFR Part 36). These rules were further revised by the United States Architectural and Transportation Barriers Compliance Board in Recommendations for Accessibility Standards for Children's Environments . The playground portion of this checklist was developed based on Where Our Children Play. Elementary School Playground Equipment. Volume 1, prepared by the American Alliance for Health, Physical Education, Recreation and Dance (Bruya & Langerdorfer, 1988).

Curricular Accessibility Checklist

Items were chosen for inclusion on this checklist based on interviews with elementary school principals in three Virginia school divisions. The King George County School Division includes two elementary schools. The Montgomery County School Division includes thirteen elementary schools. The Portsmouth City School Division includes eighteen elementary schools. Principals were chosen because of the variety, size, and location of schools in their divisions.

Each principal was interviewed using the **Elementary Principal's Interview** (appendix A). Questions included on the principal's interview were based on a review of literature on curricular, extra-curricular, technological and field trip options in U.S. elementary schools, and the researcher's past experience in elementary school education.

Principals interviewed during the development of the curricular, extra-curricular, technological and field trip checklists were chosen based on the geographic locations of their school divisions in the state of Virginia. The use of principals from various locations throughout the state allows for the inclusion of programs or field trip locations that may only exist in certain parts of the state. Principals were chosen from southwest Virginia, the Tidewater Area, and the Metro-D.C. area. Choices were also based on the size of the divisions based on the number of elementary schools in that division. Those principals were interviewed, one each from a small (two elementary schools), medium (thirteen elementary schools), and large (eighteen elementary schools) school division.

The interviews took place in the principal's office of the large division elementary school in Portsmouth, and at the medium division elementary school in Blacksburg. The interview with the principal from the small division, King George County, in Metro-D.C. occurred during the "Sixteenth

Annual Institute on Administration and Supervision in Special Education", sponsored by Virginia Tech, Virginia Beach, May 1993. Responses given by the interviewed principals took approximately one hour, and were hand recorded on forms prepared by the researcher. Additional information on school division programs was obtained though documents prepared by the school divisions as information sources for the general public concerning programs offered by the school divisions.

Following each interview and review of printed materials provided by each principal, all information was compiled into the interview reports in Appendix B.

All identified curricular areas were evaluated using the *Curriculum Accessibility Checklist* (Appendix C). A review of literature concerning curricular options was conducted to determine if there were courses offered in other parts of the country that had not been identified by the Virginia elementary principals. This review did not reveal any additional subject areas to be included in the checklist. The following areas were considered as accessibility standards for each curricular area were developed: (a) physical accessibility to the room where the course was taught (b) physical accessibility to any

equipment required for the course (c) accommodations that would make the room or equipment accessible to students with physical (mobility) disabilities (Guerin, 1991).

Extra-Curricular Activities Accessibility Checklist

Items included on the checklist were based on interviews with three Virginia elementary school principals. Principals were asked to identify extra-curricular activities sponsored by school and non-school groups that occurred on school property. All categories of activities identified were evaluated using the *Extra-Curricular Activities Accessibility Checklist* (Appendix C). As accessibility standards for each extra-curricular activity were developed, the following areas were considered: (a) physical accessibility of the room or area where the activity took place (b) physical accessibility to any equipment required in the activity (c) accommodations that would make the room or equipment accessible to students with physical (mobility) disabilities.

Technology Accessibility Checklist

Items chosen to be included on this checklist were also based on interviews with three Virginia elementary school principals. They were asked to identify technology available to students in their schools. All categories of technology identified by the principals were evaluated using the *Technology Accessibility Checklist* (Appendix C). As

accessibility standards for each type of technology were developed, the following areas were considered: (a) physical accessibility to the room where the technology was located and used (b) accommodations that were made to make the room or technology accessible to students with physical (mobility) disabilities.

Field Trip Accessibility Checklist

Items chosen to be included on this checklist were also based on interviews with three Virginia elementary school principals. They were asked to identify the locations of all field trips taken by their students in the 1992-93 school year. All location categories identified were evaluated using the *Field Trip Accessibility Checklist* (Appendix C). As accessibility standards for each location category were developed, the following areas were considered: (a) physical accessibility to transportation (b) physical accessibility to field trip locations (c) physical accessibility of accommodations, including restrooms, drinking fountains, restaurant and picnic areas (d) provision of areas for wheelchairs when the location involved the observation of a performance
(e) accommodations, if needed, that were made to the locations to make them accessible to students with physical (mobility) disabilities.

SECTION TWO

Choice of Schools Included in the Study

Support of the inclusive model by school divisions in Virginia falls into one of two categories:

(1) The division is using an inclusive model for the education of all students with disabilities including those with physical (mobility) disabilities.

(2) The division is not using an inclusive model for the education of all students with disabilities including those with physical (mobility) disabilities.

In each category, three school divisions meeting those criteria were chosen for evaluation. Each division was allowed to chose the one elementary school which they wished to have evaluated for accessibility to students with physical (mobility) disabilities.

Information relating to the inclusive model was obtained from directors of special education in Virginia school divisions by completion of the *Division Survey* (Appendix D). The identification of schools using an inclusive model (as defined in the survey) for the education of students with disabilities was by self-report.

Choice of schools to be included in the field tests was based on division size, model of special education and willingness to participate in the study. A follow-up letter was sent to all schools indicating a desire to participate

in the study (appendix E). This letter outlined the author's and the school administrator's obligations during the field study.

SECTION THREE

Case Studies

Information for the evaluation was gained through direct observation at each school site, and discussions with students and staff. One or two day visits to each school were required to complete the evaluation. Physical measures of accessible features were gathered during the site visits. In cases of low frequency use of certain materials, or nonoccurrence of certain curricular activities during the site visit, volunteer children were asked to simulate how access was gained, or asked how an activity would be accessed by a student with a physical (mobility) disability. Field-trip accessibility was based on a review of each schools plans for determining site accessibility prior to choosing that site as the location for a field trip. Each case study included the following information: (a) a site description (b) a population description (c) a facility description (d) a copy of the evaluation instrument completed during the site visit (e) a narrative summary of the evaluation findings and (f) recommendations for improvements to building and program accessibility (appendix F).

SECTION FOUR

A two part field test was used to determine the instruments comprehensiveness, usability by principals, and usefulness in determining changes that need to be made in schools to make them accessible to students with physical (mobility) disabilities.

The instrument was field tested at six sites. These sites were chosen because they represented divisions both using and not using inclusive models, and representing various student populations, large(over 9000), medium (2500 to 9000), and small (under 2500).

The author's first three field tests were conducted on site using the Accessibility Checklists; principals at the site schools conducted a survey using the same instrument. Following their survey, principals were asked to evaluate the instruments comprehensiveness, usability, and usefulness in determining changes that needed to be made in their schools to make them accessible to students with physical (mobility) disabilities (Appendix G).

A comparison of the results from the author's surveys and the principals' surveys was completed to assure rater reliability of the instrument. T-tests were performed on all areas of the checklist, to compare author's scores and principals' scores. This comparison was needed to be sure the instrument provided consistent measurement when used

either by an expert in accessibility or building level administrators without training in accessibility. This assurance will provide credibility to the instrument usability. When significant differences were found between the principals' scores and those of the expert reviewer, items on the checklist were revised and clarified for future use.

Following revisions, the instrument was field tested in an additional three sites. Again the author and site principals completed the checklist, and T-tests were conducted to measure consistency between the authors scores and the principals' scores. When significant discrepancies were found, items were reviewed and revised.

Following both field testing segments, a meta-evaluation of the instrument was used to assure the inclusion of input from principals involved in the study on any revisions needed to the Accessibility Checklist. The principals were asked to evaluate the checklist based on the checklist itself, its implementation, relative timeliness and cost of the evaluation (Worthen & Sanders, 1987). The evaluation included the eleven characteristics of a quality evaluation:

1) Conceptual clarity
2) Characterization of the object of the evaluation
3) Recognition and representation of legitimate audience

4) Sensitivity to political problems in evaluation

5) Specification of information needs and sources

6) Comprehensiveness/inclusiveness

7) Technical adequacy

8) Consideration of costs

9) Explicit standards/criteria

10) Judgements and/or recommendations

11) Reports tailored to audiences (Worthen & Sanders, 1987, p. 382-383). Following the revision of the checklist after the second round of field testing, the revised instrument was sent to all six participating principals for their final review and input. They were asked to complete a revised Building Administrator's Evaluation. The experts in the fields of school facilities and school curriculum were again asked to review the revised instrument to be sure no problem areas were missed during the field testing and review procedures (Fink & Kosecoff, 1980). Final editing of the Accessibility Checklist occurred following this review.

SECTION FIVE

Data Analysis of Field Test information

Part 1: Field tests were conducted in three Virginia school divisions. One elementary school from each division was assessed. The assessor conducted a survey of accessibility using the Accessibility Checklist. The principal of the school then completed the checklist, visiting the same classrooms and technologies, and reviewing the same extra curricular and field trip programs as the assessor. T-tests were used to compare the results of the assessor's survey to the principal's survey. When significant differences at the $p<.05$ level were found, the question on the checklist was reviewed and revised for clarification. Principals were also asked to complete a Building Administrator's Evaluation of the checklist. Data from that instrument was also used to revise the checklist. The entire checklist was reviewed and revised prior to the second part of the field test.

Part 2: Field testing of the revised Accessibility Checklist took place in three Virginia school divisions. One elementary school in each division was assessed. The assessor conducted a survey of accessibility using the Accessibility Checklist. The principal of the school then completed the checklist, visiting the same classrooms and technologies, and reviewing the same extra curricular and

field trip programs as the assessor. T-tests were used to compare the results of the assessor's survey to the principal's survey. When significant differences at the $p<.05$ level were found, the area on the checklist was reviewed and revised for clarification. Principals were also asked to complete a Building Administrator's Evaluation (appendix G) of the checklist. The results of this review were analyzed using descriptive statistics, including the number of yes or no responses to each evaluation question. Data from that instrument was also used to revise the checklist. The entire checklist was reviewed and revised prior to the final checklist review by the experts in curriculum and school facilities, and the principals involved in the field test.

Part 3: The revised checklist was reviewed by the principals involved in the field test, and experts in curriculum and school facilities at Virginia Tech. The instrument was evaluated using the Final Review of the Elementary Accessibility Checklist Form (appendix H). The results of this review were analyzed using descriptive statistics, including the number of yes or no responses to each evaluation questions. Results of this review were used to make final revisions to the checklist.

CHAPTER 4

RESULTS

The purposes of the study were to: 1) determine which school divisions in Virginia were serving students with the following disabilities: learning disabilities, emotionally disturbed, physically (mobility) disabled, multiply disabled, hearing impaired, visually impaired, mildly mentally disabled, moderately mentally disabled, severely mentally disabled, autistic, traumatic brain injured, attention deficit/hyperactive disorder (of particular concern to this study are those schools serving student with physical (mobility) disabilities); 2) determine which school divisions serve students with physical (mobility) disabilities in inclusive models; 3) determine which school divisions serve students with physical (mobility) disabilities in a non-inclusive model 4) determine if a simple checklist can be developed that can be used without expert assistance to determine the school's level of physical and program accessibility to students with physical (mobility) disabilities; 5) determine if principals using the checklist find the information provided by the review to be: a. useful in determining levels of accessibility; b. useful in short and long range planning for building

improvements; and c. useful in increasing their awareness of federal accessibility guidelines. Results are presented in the following five sections.

The first section reviews the results of the initial survey used to obtain general demographic information, determine disabilities being served in Virginia school divisions, and whether these students are being served in inclusive or non-inclusive programs. Documentation of this section comes from the survey of Virginia school divisions (appendix D). This survey was followed by a letter describing the school's responsibility in the field testing process (appendix E). Divisions were given an opportunity to indicate their willingness to participate in the field test.

The second section reviews the development, and initial review of the Elementary Accessibility Checklist. The checklist development was based on information included in the Americans with Disabilities Act of 1990, the Recommendations for Accessibility Standards for Children's Environments, a review of the literature on elementary school curricular, extra-curricular, technology and field trips options in the United States and the review of experts in the fields of elementary school curriculum, school facilities design and engineering.

The third section reviews part one of the field test.

It includes: 1) how the field tests were conducted; 2) the results of t-tests used to determine significant differences ($p<.05$) in area scores between the assessor and principals using the Elementary School Accessibility Checklist; 3) an analysis of the Building Administrators Evaluation of the instrument; and 4) changes made in the Accessibility Checklist following part one of the field test.

The fourth section reviews part two of the field test. It includes: 1) how the field tests were conducted; 2) the results of t-tests used to determine significant differences ($p<.05$) in area scores between the assessor and principals using the Elementary School Accessibility Checklist; 3) an analysis of the Building Administrators Evaluation; and 4) changes made in the Accessibility Checklist following part two of the field test.

The fifth section reviews the final checklist revision and includes: 1) final instrument review by participating principals and the experts on elementary curriculum and school facility design (appendix H); 2) an analysis of the comments from the Final Review of the Elementary School Accessibility Checklist; and 3) final changes made in the Accessibility Checklist.

SECTION ONE

SURVEY OF VIRGINIA SCHOOL DIVISIONS

The Division survey was developed to obtain the

following information: 1) name of the division special education director; 2) division size; 3) disability groups served by the division (particularly those serving students with physical (mobility) disabilities; 4) model of special education service delivery; 5) support of the service delivery model by written school policy; and 6) interest of the school division in participating in the checklist development field study (see summary of Initial Survey Results).

The survey was completed by 73 of the 133 school divisions in Virginia (54%). Division enrollments ranged from 135 students to 75,000 students. For the purpose of choosing field test participants, divisions were divided by size: large - over 9000; medium - 2500 to 9000; small - 135 to 2499. The schools completing the survey reported: those serving students with physical (mobility) disabilities - 63 (86%); those using an inclusive model of special education - 42 (57%); those using a non-inclusive model of special education 31 (43%); those who back their inclusive model of education with written school policy 2 (2%); those interested in taking part in the Accessibility Checklist field testing 47 (64%). A follow-up letter was sent to all schools indicating an interest in continued participation in the field testing process (appendix E). Of the 47 letters sent, 34 responded (72%). Of those responding 13 (38%)

Summary of Initial Survey Results

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Accomack	5406	yes	no	no	maybe
Albemarle	*				
Alexandria	9694	yes	yes	no	no
Alleghany Highlands	3116	yes	somewhat	no	yes
Amelia	1675	no	yes	no	no
Amherst	*				
Appomattox	2285	yes	yes	no	yes
Arlington	*				
Augusta	*				
Bath	*				
Bedford	9195	yes	no	yes	yes
Bland	*				
Botetourt	*				
Bristol	*				
Brunswick	2601	yes	yes	no	yes
Buchanan	5900	yes	yes	no	yes
Buckingham	2087	yes	yes	no	yes
Buena Vista	1074	yes	yes	no	yes
Campbell	8300	yes	no	no	yes
Caroline	*				
Carroll	3838	yes	yes	no	maybe
Hillsville	*				
Hanover	12500	yes	yes	no	maybe
Charles City	*				
Charlotte	*				

Survey (con't)

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Charlottesville	4400	yes	yes	no	no
Chesapeake	33300	yes	yes	no	no
Chesterfield	48000	yes	yes	no	yes
Clarke	1700	no	yes	no	yes
Colonial Heights	2600	yes	no	no	no
Covington	**	no	no	no	no
Craig	675	**	**	**	**
Culpepper	5100	yes	yes	no	no
Cumberland	*				
Danville	*				
Dickenson	*				
Dinwiddie	*				
Essex	*				
Fairfax	**	**	**	**	no
Falls Church	135	yes	yes	no	yes
Fuaquier	8400	yes	no	no	yes
FLoyd	1721	yes	**	**	**
Fluvanna	*				
Franklin	*				
Frederick	**	yes	**	**	**
Fredericksburg	*				
Galax	1200	yes	yes	no	no
Giles	2591	yes	yes	no	yes
Gloucester	6250	yes	no	no	maybe
Gouchland	*				

Survey (con't)

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Grayson	2200	yes	yes	no	no
Greene	2196	yes	yes	no	yes
Greensville	2700	yes	no	no	yes
Halifax	6504	yes	**	no	no
Hampton	*				
Hanover	*				
Harrisonburg	*				
Henrico	*				
Henry	9100	yes	yes	no	no
Highland	385	no	yes	no	no
Hopewell City	4125	yes	no	no	yes
Isle of Wright	4428	yes	yes	no	yes
King George	*				
King and Queen	*				
King William	1600	no	**	**	**
Lancaster	*				
Lee	*				
Lexington	650	no	yes	no	no
Loudon	*				
Louisa	*				
Luenburg	2100	no	no	no	no
Victoria	*				
Lynchburg City	*				
Madison	1893	yes	no	no	**
Manassas	5300	no	yes	no	**
Manassas Park	*				

Survey (con't)

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Martinsville	2800	yes	yes	no	yes
Mathews	*				
Mecklenburg	*				
Middlesex	*				
Montgomery	8500	yes	yes	yes	yes
Nelson	2100	yes	yes	no	yes
New Kent	*				
Newport News	30000	yes	no	no	yes
Norfolk City	*				
Northhampton	2442	yes	no	no	yes
Northumberland	*				
Norton City	900	yes	yes	no	yes
Nottoway	2457	yes	no	no	yes
Orange	**	yes	yes	no	yes
Page	3800	yes	yes	no	yes
Patrick	2500	yes	yes	no	no
Petersburg City	6321	yes	**	no	no
Pittsylvania	*				
Poquoson	2400	yes	yes	no	yes
Portsmouth	18250	yes	yes	no	yes
Powhatan	2500	no	no	no	**
Prince Edward	2626	**	no	no	yes
Prince George	5100	yes	no	no	no
Prince William	45486	yes	no	no	no
Pulaski	5200	yes	yes	no	yes
Radford	1500	no	no	no	no

Survey (con't)

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Rappahannock	997	yes	no	no	yes
Richmond City	*				
Richmond County	1300	yes	no	no	no
Roanoke City	12500	yes	yes	no	yes
Roanoke County	*				
Rockbridge City	3000	yes	yes	no	yes
Rockbridge County	*				
Russell	636	yes	no	no	yes
Salem City	*				
Scott	3936	yes	no	no	yes
Shenandoah	*				
Smyth	*				
South Boston City	750	no	no	no	no
Southhampton	*				
Spotslyvania	14200	yes	yes	no	yes
Stafford	*				
Staunton City	*				
Suffolk City	*				
Surry	*				
Sussex	*				
Tazewell	*				
Colonial Beach	*				
West Point	690	yes	no	no	yes
Virginia Beach	75000	yes	yes	no	maybe

Survey (con't)

School Division	Enrollment	Students with Mobility Disabilities	Inclusive Model	Inclusive Policy	May Take Part
Warren	4700	yes	no	no	yes
Washington	7600	yes	yes	no	yes
Waynesboro City	2876	yes	yes	no	yes
Westmoreland	2000	yes	no	no	no
Williamsburg	*				
Winchester City	*				
Wise	*				
Wythe	4793	yes	yes	no	yes
York	10569	yes	yes	no	yes

* - no response to survey
** - no answer on that question

indicated that they would participate in the field test (see Results of Follow-up Letter). The schools actually chosen to participate in the field test came from that group. The schools were chosen based on division size (one small, one medium, and one large sized division), and their model of special education (3 inclusive, 3 non-inclusive). Descriptions of the divisions chosen include: Large, inclusive - 18,250 students; Medium, inclusive - 2,591 students; Small, inclusive - 1,074 students; Large, non-inclusive - 9,195 students; Medium, non-inclusive - 4,700 students; Small, non-inclusive - 646 students. The schools chosen were from the Tidewater, northern, central and southwest sections of Virginia.

SECTION TWO

DEVELOPMENT AND INITIAL REVIEW OF THE CHECKLIST

The Elementary Accessibility Checklist was developed using guidelines from the United States Architectural and Transportation Barriers Compliance Board. The board determined that age, type of disability and severity of disability were the most important characteristics affecting need for an accessible environment. Factors that influence these characteristics include: fine motor ability, upper body strength, extent of reach, stature, balance and skill level in negotiating an environment (Executive Summary vi). The original physical accessibility portion of the checklist

Results of Follow-up Letter
Were Divisions Still Interested in Participating in the Study?

School Division	Yes	No
Accomack		√
Alleghany Highlands	√	
Appomattox		√
Bedford	√	
Brunswick		√
Buchanan	*	
Buckingham	*	
Buena Vista	√	
Campbell	*	
Carroll	*	
Hanover		√
Chesterfield	*	
Clarke	*	
Falls Church	*	
Fairfax		√
Faquier	*	
Giles	√	
Gloucester		√
Greene	*	
Greensville	*	
Hopewell Cit	√	
King William	√	

Follow-up (con't)

School Division	Yes	No
Isle of Wright	*	
Madison	*	
Martinsville		√
Montgomery		√
Newport News	*	
Northampton		√
Nelson		√
New Kent	*	
Norton City		√
Nottoway		√
Orange	√	
Page	*	
Petersbury City	*	
Poquoson	*	
Portsmouth	√	
Prince Edward	√	
Prince William		√
Pulaski	*	
Rappahannock		√
Roanoke City	*	
Rockbridge City	*	
Rockbridge County		√
Russell	√	

Follow-up (con't)

School Division	Yes	No
Scott		√
Spotslyvania		√
West Point		√
Washington		√
Virginia Beach		√
Warren	√	
Waynesboro City	√	
Wythe		√
York	√	

* - indicates no response to follow-up letter

included all standards listed in the Recommendations forAccessibility Standards for Children's Environments. However, after review by Glen Earthman - school facilities specialist, and Robert Dryden - engineer, it was determined that school principals would not have the skills or equipment required to do such an extensive evaluation of the facility. At that time, all standards were removed that would have required special training or equipment. Examples of items removed included: illumination levels at the elevator controls shall be at least 5 footcandles; curb ramps must not have a slope greater than 1:10; and door hardware must require no more than 0.65 pounds grip strength to open.

The program accessibility portion of the checklist was developed following interviews with elementary principals in Tidewater, northern and southwestern sections of Virginia (appendix B). Those interviews were used to determine the curricular, extra curricular, technological and field trip opportunities offered in elementary schools across Virginia. The original accessibility checklist included evaluations of all identified programs and equipment. This checklist was reviewed by Josiah Tlou - elementary curriculum specialist. He agreed with all areas that were included, and suggested the inclusion of a section that would review the transportation of students with physical (mobility)

disabilities. This section was added to the checklist.

SECTION THREE

FIELD TEST PART ONE

The initial field test of the Accessibility Checklist took place in a large school division using an inclusive model of special education, a medium sized school division using a non-inclusive model of special education, and a medium sized school division using an inclusive model of special education. Each division was allowed to chose the elementary school they wished to have evaluated.

Responses on the checklist were coded in the following manner: 2 points - the standard listed was met; 1 point - the standard was met with provided accommodations; 0 points - the standard was not met. All points within an area were added to provide an area score. Physical areas evaluated included: regular school bus, playground, cafeteria, seating, library, parking, routes, water closets, telephone, drinking fountain, bathroom, and elevator. Technology evaluated in each school varied depending on the technology available in that school. Field trips evaluated in each school varied depending on the trips that had occurred during the school year. Extra curricular activities varied depending on what was offered in each school. Curricular programs evaluated included: grades kindergarten through six, PE, art, music, library arts, computer technology and a

gifted and talented program.

On-site evaluations were conducted in each school. The author spent approximately 7 hours (over two days) on each assessment. Following the author's assessment, each principal completed an identical assessment. Principals were given an accessibility checklist, that had been marked to indicate the classrooms, pieces of equipment, field trips and extra curricular activities that had been reviewed by the author. The principal's checklist also indicated which teachers had been interviewed during the completion of the author's assessment. Principals were instructed to interview the same teachers, and review the same pieces of equipment, field trips and extra curricular activities. This was done to insure the evaluation of matched sources. After the author had left the facility, the principals completed the Accessibility Checklist independently. Phone conversations with principals indicated that the principals spent between 2 and 3 hours completing the assessment. Following the completion of the Accessibility Checklist, principals were asked to complete the Building Administrator's Evaluation form (appendix G). The completed Accessibility Checklist and evaluations were then mailed to the author.

The results from the author's assessments and the results from the principals' assessments were compared to

determine if there were significant differences between the two evaluations. When significant differences were found at the $p<.05$ level, the checklist area involved was reviewed and clarified. The results of these comparisons are found in School Summaries 1, 2 and 3 (Appendix I), with ASS indicating the assessor's score, and PRI indicating the principal's score. Table 1 provides a summary of the results from schools 1-3. Significant differences were found in the following areas: School Summary 1 - School Areas -parking and loading zones (ASS $\underline{M}$=2.00, PRI $\underline{M}$=1.40); Classes - kindergarten (ASS $\underline{M}$=1.80, PRI $\underline{M}$=1.60), library arts (ASS $\underline{M}$=1.80, PRI $\underline{M}$=1.60) and computer technology (ASS $\underline{M}$=1.46, PRI $\underline{M}$=1.69). School Summary 2 - School Areas - routes (ASS $\underline{M}$=0.92, PRI $\underline{M}$=1.38); Extra Curricular Activities - Odyssey of the Mind (ASS $\underline{M}$=1.60, PRI $\underline{M}$=2.00); Classes - Grade 2 (ASS $\underline{M}$=1.60, PRI $\underline{M}$=2.00), Grade 5 (ASS $\underline{M}$=1.73, PRI $\underline{M}$=1.93), PE (ASS $\underline{M}$=1.50, PRI $\underline{M}$=2.00). School Summary 3 - School Areas - playground (ASS $\underline{M}$=.571, PRI $\underline{M}$=1.42), library (ASS $\underline{M}$=1.00, PRI $\underline{M}$=2.00), water closet (ASS $\underline{M}$=1.33, PRI $\underline{M}$=2.00); Technology - electric pencil sharpener (ASS $\underline{M}$=1.53, PRI $\underline{M}$=2.00); Field Trips - Smithfield Plantation - (ASS $\underline{M}$=.833, PRI $\underline{M}$=1.66).

Table 1
Summary of Schools 1, 2 and 3

Program Area	School 1	School 2	School 3
School Areas			
1. School Bus	*	NS	NS
2. Playground	NS	NS	S
3. Cafeteria	NS	NS	NS
4. Seating	NS	NS	NS
5. Library	NS	NS	S
6. Parking	S	NS	NS
7. Routes	NS	S	NS
8. Water Closet	NS	NS	S
9. Telephone	NS	NS	NS
10. Bathroom	NS	NS	NS
11. Water Fountain	NS	NS	NS
Technology			
1. Television	NS	NS	NS
2. Electric Wheelchair	NS	NA	NA
3. Record Player	NS	NA	NA
4. Black Board	NS	NA	NA
5. Computer	NA	NS	NS
6. Kitchen	NA	NS	NA
7. Laser Disk	NA	NA	NS
8. Tape Player	NA	NA	NS

Table 1 (cont.)
Summary of Schools 1, 2 and 3

Program Area	School 1	School 2	School 3
9. Overhead Projector	NA	NA	NA
10. Electric Pencil Sharpener	NA	NA	S
Field Trips			
1. Museum	NS	NA	NA
2. Theater	NS	NS	NS
3. Pumpkin Patch	NS	NA	NA
4. Nursery	NS	NA	NA
5. Mount Vernon	NA	NS	NA
6. Skyline Caverns	NA	NS	NA
7. Zoo	NA	NS	NS
8. Plantation	NA	NA	S
Extra Curricular Activities			
1. Bowling	NA	NS	NA
2. Odyssey of the Mind	NA	S	NS
3. After Hours Classes	NA	NA	NS
4. Chess Club	NA	NA	NA

Table 1 (cont.)
Summary of Schools 1, 2 and 3

Program Area	School 1	School 2	School 3
Classes			
1. Grade K	S	NS	NS
2. Grade 1	NS	NS	NS
3. Grade 2	NA	S	NS
4. Grade 3	NA	NS	NS
5. Grade 4	NA	NS	NS
6. Grade 5	NA	S	NS
7. Grade 6	NA	NA	NS
8. Art	NS	NA	NS
9. Music/Band	NS	NA	NS
10. PE	NS	S	NS
11. Library Arts	S	NA	NA

* Indicates t cannot be calculated
NS - Not significant at the $p<.05$ level
S - Significant at the $p<.05$ level
NA - Program or class not available at the school

The results of the Building Administrator's Evaluations were:

Conceptual Clarity

1) Did the evaluation plan provide a clear picture of what was to be evaluated and how the evaluation would take place?
   Yes - 4 No - 0
   Comments - None

Characterization of the object of the evaluation

2) Did you clearly understand that all classrooms, restrooms, activity areas, buildings and grounds would be included in the accessibility evaluation?
   Yes - 4 No - 0
   Comments - None

Sensitivity to political problems in evaluation

3) Did the fact that your building was being evaluated for accessibility cause any problems with the following stakeholders in your division:

Parents -	Yes - 0	No - 4
Students -	Yes - 0	No - 4
Building Staff -	Yes - 1	No - 3
School Administration -	Yes - 1	No - 3
School Board -	Yes - 0	No - 4

Comments -
Building Staff -
1. some concern
2. they enjoyed your visit
Administrators -
1. worry about where report would go, who the assessor represented

Specifications of information needs and sources

4) Will the inclusion of the completed checklists assist you as you plan for accessibility improvements?
   Yes - 4 No - 0
   Comments -
   1. May help to get needed monies for updating building

Consideration of Costs

5) If your school division chose to complete this evaluation independently would the cost of personnel involved be:

Too High -	Yes - 1	No - 3
Acceptable -	Yes - 3	No - 1

Comments-
1. Perhaps since this was not budgeted

6) Explicit Standards/Criteria
Were the standards listed on the checklist clear, and measurable?
Yes - 3 No - 1
Comments-
1. Did have a little trouble measuring - cafeteria, bathrooms, etc., did the best I could.
2. Not in all cases, examples: bus transportation, medical plan, pre and in-service training.

Comprehensiveness/Inclusiveness

7) Were all areas of your school building and grounds addressed in the *Physical Accessibility Checklist*?
Yes - 4 No - 0

8) Were all areas of your school's curriculum addressed in the *Curriculum Accessibility Checklist*?
Yes - 4 No - 0

9) Were all areas of your school's extra-curricular activities addressed in the *Extra-Curricular Activity Checklist*?
Yes - 4 No - 0

10) Were all areas of your school's technology addressed in the *Technology Checklist*?
Yes - 4 No - 0

11) Were all of your school's possible field trip activities addressed in the *Field Trip Checklist*?
Yes - 4 No - 0

Judgements and/or Recommendations

12) Are there specific changes that should be made to the checklists to make them more useful to building administrators?
1. None that come to mind.
2. I thought the checklist was fine.
3. Each curricular area need not be addressed for each grade.
4. Include PE, Music, Art, and Library Science in separate area, not by grade.

13) Are there changes that should be made to make the checklist easier for building administrators to use?
1. None that I can think of at this time.
2. No

Following the review of significant differences in area scores, and the review of the Building Administrators' Evaluations, the following changes were made in the Accessibility Checklist: 1) All classroom curricular areas were combined into one checklist (the evaluation indicated that if accommodations were made in one course area, they were made in all course areas); 2) Evaluation of door hardware was separated in inside and outside categories; 3) Lavatory condition and insulation of pipes were addressed in separate standards; 4) Telephone checklist included instructions that if a public pay phone was not available, then the office phone used by students or building visitors should be assessed; 5) Transportation checklist included further explanation of neighborhood buses; 6) Class checklist - pre-service and in-service teacher educational preparation were divided into two separate standards; 7) Addition of the word "written" in the standard requiring an emergency medical plan; 8) Addition of a standard requiring teacher awareness of emergency medical procedures; 9) Addition of the word "written" in the standard requiring emergency behavior plans; and 10) Separation of non-core courses into a separate category - these courses included

PE, art, music and library arts. These changes resulted in the reduction in size of the Accessibility Checklist from one 3 inch notebook and one 1 1/2 inch notebook, to one 1 inch notebook.

SECTION FOUR

FIELD TEST PART TWO

Part two of the field test of the Accessibility Checklist took place in a large school division using a non-inclusive model of special education, a small sized school division using an inclusive model of special education, and a small sized school division using a non-inclusive model of special education. Each division was allowed to chose the elementary school they wished to have evaluated.

Responses on the checklist were coded in the following manner: 2 points - the standard listed was met; 1 point - the standard was met with provided accommodations; 0 points - the standard was not met. All points within an area were added to provide an area score. Physical areas evaluated included: regular school bus, playground, cafeteria, seating, library, parking, routes, water closets, telephone, drinking fountain, bathroom, and elevator. Technology evaluated varied depending on the technology available in each school. Field trips evaluated in each school varied depending on the trips that had occurred during the school year. Extra curricular activities varied depending on what

was offered in each school. Curricular programs evaluated included: grades kindergarten through six, PE, art, music, library arts, computer technology and a gifted and talented program.

On-site evaluations were conducted in each school. The author spent approximately 5 hours (1 day) on each assessment. Following the author's assessment, each principal completed an identical assessment. Principals were given an accessibility checklist that had been marked to indicate the classrooms, pieces of equipment, field trips and extra curricular activities that had been reviewed by the author. The principal's checklist also indicated which teachers had been interviewed during the completion of the author's assessment. Principals were instructed to interview the same teachers, and review the same pieces of equipment, field trips and extra curricular activities. This was done to insure the evaluation of matched sources. After the author had left the facility, the principals completed the Accessibility Checklist independently. Phone conversations with principals indicated that the principals spent between 1 1/2 hours and 4 hours completing the assessment. Following the completion of the Accessibility Checklist, principals were asked to complete the Building Administrator's Evaluation form (appendix G). The completed Accessibility Checklist and evaluations were then mailed to

the author.

The results from the author's assessments and the results from the principals' assessments were compared to determine if there were significant differences between the two evaluations. When significant differences were found at the $p<.05$ level, the checklist area involved was reviewed and clarified. The results of these comparisons are found in School Summaries 4, 5, and 6 (Appendix I), with ASS indicating the assessor's score, and PRI indicating the principal's score. Table 2 provides a summary of the results from schools 4-6. Significant differences were found in the following areas: School Summary 4 - Technology - overhead projector (ASS M=1.07, PRI M=0.61), television (ASS M=1.38, PRI M=0.61), computer with CD Rom (ASS M=1.53, PRI M=0.61), practice telephones (ASS M=1.53, PRI M=0.00);Classes - kindergarten (ASS M=1.17, PRI M=0.58), grade 1 (ASS M=1.23, PRI M=0.70), grade 2 (ASS M=1.17, PRI M=0.58), grade 4 (ASS M=0.94, PRI M=0.64), grade 5 (ASS M=1.05, PRI M=0.58), Grade 6 (ASS M=1.27, PRI M=0.94), library arts (ASS M=1.23, PRI M=1.00), Art (ASS M=1.22, PRI M=0.88). School Summary 5 - School Areas - playground (ASS M=1.00, PRI M=0.28); Technology - computer (ASS M=1.69, PRI M=1.07), television (ASS M=1.69, PRI M=1.30); Classes - kindergarten (ASS M=1.58, PRI M=2.00), grade 1 (ASS M=1.47, PRI M=2.00), grade 2 (ASS M=1.58, PRI M=2.00), grade 3 (ASS

Table 2
Summary of Schools 4, 5 and 6

Program Area	School 4	School 5	School 6
School Areas			
1. School Bus	*	*	S
2. Playground	*	S	NS
3. Cafeteria	NS	NS	NS
4. Seating	NS	NS	NS
5. Library	NS	NS	NS
6. Parking	NS	NS	NS
7. Routes	NS	NS	NS
8. Water Closet	NS	NS	NS
9. Telephone	NS	NS	NS
10. Bathroom	NS	NA	NA
11. Water Fountain	NS	NS	NS
12. Elevator	NA	NS	NA
13. Stairs	NS	*	NS
Technology			
1. Television/VCR	S	S	NS
2. Computer	S	S	NS
3. Laser Disk	S	NA	NS
4. Overhead Projector	S	NS	NA
5. Telephones	*	NA	NA
6. Film Projector	NA	NS	NA

Table 2 (cont.)
Summary of Schools 4, 5 and 6

Program Area	School 1	School 2	School 3
Field Trips			
1. Museum	NS	NA	NA
2. Theater	NA	NS	S
3. Greenhouse	NA	NS	NA
4. Airport	NS	NA	NA
5. VMI	NS	NA	NA
6. Appomattox	NA	NA	NS
Extra Curricular Activities			
1. Scouting	NS	NA	NS
2. Odyssey of the Mind	NA	NA	NS
3. Recreation Leagues	NA	NS	NS
Classes			
1. Grade K	S	S	NS
2. Grade 1	S	S	NS
3. Grade 2	S	S	NS
4. Grade 3	NS	S	NS
5. Grade 4	S	S	NS
6. Grade 5	S	NS	NS
7. Grade 6	S	S	NS
8. Art	S	NA	NA

Table 2 (cont.)
Summary of Schools 4, 5 and 6

Program Area	School 1	School 2	School 3
9. Music/Band	NA	S	NA
10. PE	NA	S	NS
11. Library Arts	S	NA	NA

* Indicates t cannot be calculated
NS - Not significant at the $p<.05$ level
S - Significant at the $p<.05$ level
NA - Program or class not available at the school

M=1.05, PRI M=2.00), grade 4 (ASS M=1.58, PRI M=2.00), grade 6 (ASS M=1.52, PRI M=2.00), PE (ASS M=1.22, PRI M=1.55), Music (ASS M=1.55, PRI M=2.00). School Summary 6 - School Areas - school bus - (ASS M=0.50, PRIM=1.50), Field Trips - Sesame Street Live - (ASS M=1.00, PRI M=1.75).

The results of the Building Administrator's Evaluation were:

Conceptual Clarity

1) Did the evaluation plan provide a clear picture of what was to be evaluated and how the evaluation would take place?
Yes - 3 No - 1

Comments -
1. It did for the most part. However, I did ask a colleague for some clarification at times. The inclusion of written directions would have helped as I completed the assessment on my own.
2. The researcher did not request the time involved by the administrator or teacher in completing the evaluation.

Characterization of the object of the evaluation

2) Did you clearly understand that all classrooms, restrooms, activity areas, buildings and grounds would be included in the accessibility evaluation?
Yes - 3 No - 1
Comments -
1. I didn't think it would be this thorough.
2. After reviewing the packet I understood the information requested.

Sensitivity to political problems in evaluation

3) Did the fact that your building was being evaluated for accessibility cause any problems with the following stakeholders in your division:

Parents -	Yes - 0	No - 4
Students -	Yes - 0	No - 4
Building Staff -	Yes - 0	No - 4
School Administration -	Yes - 1	No - 3
School Board -	Yes - 0	No - 4

Comments -

1. No one questioned the need for this study.
2. Again misrepresentation of the time involved and evaluation turn around time of material. Ice storms did not help this matter.

Specifications of information needs and sources

4) Will the inclusion of the completed checklists assist you as you plan for accessibility improvements?
Yes - 3 No - 1
Comments -
1. As we plan for accessibility improvements, this survey will help document the need.
2. Some minor improvements could be made to the existing site.

Consideration of Costs

5) If your school division chose to complete this evaluation independently would the cost of personnel involved be:
Too High - Yes - 0 No - 4
Acceptable - Yes - 4 No - 0
Comments-
1. I can't answer for the school division. However, cost would be a factor.

Explicit Standards/Criteria

6) Were the standards listed on the checklist clear, and measurable?
Yes - 4 No - 0
Comments-
1. Standards were measurable. All were not clear.

Comprehensiveness/Inclusiveness

7) Were all areas of your school building and grounds addressed in the *Physical Accessibility Checklist*?
Yes - 4 No - 0

8) Were all areas of your school's curriculum addressed in the *Curriculum Accessibility Checklist*?
Yes - 4 No - 0

9) Were all areas of your school's extra-curricular activities addressed in the *Extra-Curricular Activity Checklist*?
Yes - 4 No - 0

10) Were all areas of your school's technology addressed in the *Technology Checklist*?
Yes - 4 No - 0

11) Were all of your school's possible field trip activities addressed in the *Field Trip Checklist*?
Yes - 3 No - 1
Comments -
1. Kindergartners go on more field trips, such as visits to farms, zoos, etc.

Judgements and/or Recommendations

12) Are there specific changes that should be made to the checklists to make them more useful to building administrators?
Comments -
1. The checklists are adequate.
2. Should include a (DNA) does not apply.
3. Make the evaluation form shorter by utilizing a checklist.

13) Are there changes that should be made to make the checklist easier for building administrators to use?
Comments -
1. Some explanation of the terminology would be helpful.
2. Use a checklist to assess areas and a short narrative to address areas of non-compliance.

Following the review of significant differences in area scores, and the review of the Building Administrators' Evaluations, the following changes were made in the Accessibility Checklist: 1) Inclusion of direction for the use of the accessibility checklist - including methods of use, directions for scoring, directions for completion of narrative summary, and methods of collecting data; 2) change in scoring of the checklist from a numerical to an abbreviation method: MS - meets standard, WA - meets standard with provided accommodations, NM - does not meet standard, and DNA - does not apply. These changes were made to clarify the scoring of the instrument, and to alleviate

concerns about the scoring of items that did not apply to the schools being assessed.

SECTION FIVE

FINAL INSTRUMENT REVIEW AND REVISION

Following the field test part two revision, the entire revised Accessibility Checklist was returned to the principals involved in the field tests, and the experts on school facility design, and elementary curriculum. They were asked to review the instrument and complete the Final Review of the Elementary School Accessibility Checklist (appendix H). The results of that review are as follows:

FINAL REVIEW OF THE ELEMENTARY SCHOOL ACCESSIBILITY CHECKLIST

1. Will this instrument assist in:

   a. Determining the school building's level of accessibility to students with physical (mobility) disabilities?

      Yes - 8 No - 0

      Comments -
      1. The instrument can document the need for handicapped ramps, etc.

   b. Determining the school ground's level of accessibility to students with physical (mobility) disabilities?

      Yes - 8 No - 0

      Comments -
      1. The instrument can assist with the overall plans to make the school site accessible to all students.

c. Determining accessibility for students with physical (mobility) disabilities to the classes offered by the school?

Yes - 8 No - 0

Comments -
1. The instrument can assist with the planning to make classes accessible to all students by moving classes, remodeling or purchasing equipment, fixtures, etc.

d. Determining accessibility for students with physical (mobility) disabilities to the extra-curricular programs offered by the school?

Yes - 8 No - 0

Comments -
1. The instrument lists information to help plan for an inclusive extra-curricular program by making changes to accommodate the handicapped.

e. Determining accessibility for students with physical (mobility) disabilities to the technology available in the school?

Yes - 8 No - 0

Comments -
1. The instrument provides insight when purchasing equipment and modifying facilities to accommodate technology.

f. Determining accessibility for students with physical (mobility) disabilities to field trip experiences offered by the school?

Yes - 8 No - 0

Comments -
1. The instrument increases awareness when planning field trips to various sites.

2. Will the instrument assist in:

   a. Short range planning for building accessibility improvements?

      Yes - 8 No - 0

      Comments -
      1. The instrument would help with the priority of improvements that could be accomplished in a short period of time.
      2. I would like to think this would be the case - School Board Office has the final say when.

   b. Long range planning for building accessibility improvements?

      Yes - 8 No - 0

      Comments -
      1. The instrument could help with the scope and complete view for long range planning.
      2. Very good for this.

   c. Planning for in-service activities to assist teachers as they make their classes more accessible to students with physical (mobility) disabilities?

      Yes - 7 No - 0 Maybe - 1

      Comments -
      1. The instrument provides much information and many topics to focus on for in-service activities.
      2. Teachers are already good at this.

3. Does the instrument increase your awareness of federal accessibility guidelines?

      Yes - 8 No - 0

      Comments -
      1. The instrument gives clarification to previously known federal guidelines.

4. Are the instructions included at the beginning of the instrument clear?

Yes - 8 No - 0

Comments -
1. The explanations given are adequate to successfully complete the instrument.

5. Could building administrators use the instrument to determine their school's level of accessibility, without the assistance of an expert in the field of accessibility?

Yes - 8 No - 0

Comments -
1. Experienced administrators shouldn't have any problems with completing this instrument.

6. Are there any additional comments you wish to make about the Elementary School Accessibility Checklist?

Comments -
1. We appreciate the opportunity to participate.
2. It was a very useful instrument.
3. Too long of an instrument.
4. The instrument provides information to schools regarding accessibility. The information can be used when new facilities are being planned or when older facilities are renovated or upgraded.
5. I think you have an excellent appraisal form. I do, however, disagree with all the items dealing with the staffing functions which, although absolutely necessary, does not deal with building accessibility which is what the instrument is supposed to measure.

CHAPTER 5

Summary

The purposes of this study were to develop and field test a non-technical checklist that can be used by elementary building administrators for self study to determine their school's level of accessibility to school buildings, grounds, curriculum, technology and extra-curricular activities, and develop an awareness of accessibility needs.

The checklist was developed using information from Recommendations for Accessibility Standards for Children's Environments, Where our Children Play. Elementary School Playground Equipment Volume I, a literature review of elementary school curricular, extra-curricular, technology and field trips options in the United States and interviews with elementary principals in the state of Virginia. Following the checklist's original development, it was reviewed by experts in the fields of school facility design, elementary curriculum and engineering. Following this initial review, the checklist was revised prior to part one of the field test.

Schools were chosen for inclusion in parts one and two of the field test based on information obtained from the Division Survey sent to all school divisions in Virginia. Information from the survey included school division size,

model of special education (inclusive or non-inclusive), the categories of students with disabilities currently being served in the division, and willingness to participate in the accessibility checklist field study. Those schools who were serving students with physical (mobility) disabilities, and indicated a willingness to participate in the field study received follow-up letters outlining their responsibilities in the field testing process. From those returning the follow-up response form, schools were chosen for participation in the study. Those schools chosen represented small, medium and large schools using inclusive and non-inclusive models of special education. School divisions not chosen for the study were informed and thanked for their willingness to participate. They will receive a copy of the final accessibility checklist for use in their divisions.

Discussion

Part one of the field test took place in school divisions located in the Tidewater, northern and southwest areas of Virginia. The author visited each site, and completed the Elementary School Accessibility Checklist. Following the author's assessment, each school principal also completed the assessment. T-tests were used to compare the scores given by the author and the principals in the areas included on the checklist, to determine if there were

significant differences in scores between the author and the principals. If significant differences were found at the $p<.05$ level, that area of the checklist was reviewed and clarified. Significant differences were found in areas assessing accessibility to routes around the school, parking and loading zones, playground, library, water closets, classes K-6, extra-curricular activities, technology and field trips. Each of these areas were reviewed and modified to clarify the standards. Modifications and clarifications were also made based on the Building Administrator's Evaluation, completed by the three principals involved in the field test, and the author. These evaluations indicated a need for modifications of standards in areas including bus transportation, medical plans, pre and in-service training, the addressing of each course offered in each grade, and the need to include the non-core curricular areas of PE, Art, Music, Library Arts, and Cultural Arts in a separate section of the checklist. The modifications following part one of the field test resulted in the size reduction of the manual from two notebooks (one 3 inch and one 1 1/2 inch) to one 1 inch notebook.

The accuracy of scoring during part one of the field test may have been influenced by the amount of time each principal spent completing the checklist, and whether or not they actually interviewed the teachers whose classrooms were

assessed. In follow-up phone interviews with the principals involved, one principal did admit that he did not actually visit the classrooms or interview the teachers that had been assessed by the author. He used his personal knowledge of those classrooms and teachers to complete the checklist.

Part two of the field test took place in school divisions located in the central and southwest areas of Virginia. The author visited each site, and completed the revised Elementary School Accessibility Checklist. Following the author's assessment, each school principal also completed the assessment. T-tests were used to compare the scores given by the assessor and the principals in the areas included on the checklist, to determine if there was a significant difference between the author and the principal's score. If significant differences were found at the $p<.05$ level, that area of the checklist was reviewed and clarified. Significant differences were found in areas assessing accessibility to technology, classes K-6, music, and library arts. Each of these areas were reviewed for needed modification or clarification. Modifications and revisions were also made based on the Building Administrator's Evaluation completed by the three principals involved in the field test and the author. Changes were made to include directions for the use of the accessibility checklist. The scoring method was changed from a numerical

system to one using abbreviations indicating the level of accessibility for each standard. A "does not apply" score was also added. These changes were made to clarify the scoring of the instrument, and to alleviate concerns about the scoring of items that did not apply to the schools being assessed. One principal was particularly concerned with the amount of time required for the completion of the checklist, indicating that when he agreed to take part in the assessment he was not aware it would take so long. As noted in the follow-up letter to division special education directors (appendix E), it was made clear that the assessment would take 4 to 6 hours to complete. It is possible that the division's special education director did not share this letter or the time requirements with the principal. Again there were some questions as to whether all principals actually interviewed each teacher that was to be assessed. This was particularly true for the principal that took only 1 1/2 hours to complete the checklist.

As a final check of the useability and comprehensiveness of the Elementary School Accessibility Checklist, the revised checklist was sent to participating principals and experts in the fields of school facility design and elementary curriculum. The results from this final evaluation indicated that these individuals did find the checklist useful in determining the accessibility levels

of school buildings, grounds, classes, extra curricular activities, technology and field trips. It was also found to be useful in short and long range planning for building accessibility improvements. It will also assist in planning for in-service activities developed to help teachers improve the classroom accessibility. The use of the instrument did increase the principals' awareness of federal accessibility guidelines. Principals indicated that the written directions added to the final version of the checklist were clear, and would help administrators as they used the checklist without the assistance of an expert in the area of accessibility review. Final comments about the checklist indicated that the principals felt the use of the checklist in their building would aid in providing information on school accessibility, and would be useful in the planning of new buildings or the renovation of older facilities. Appreciation was expressed for the opportunity to take part in the field test, and receive information on their facilities level of accessibility to students with physical (mobility) disabilities.

Conclusions

This study examined school divisions in Virginia to determine if their enrollment included students with physical (mobility) disabilities, and if they were being served using an inclusive model of special education. If

the 54% of divisions that responded are representative of the school divisions in Virginia, then over half of the students with physical (mobility) disabilities in Virginia are being served in an inclusive environment. If these children are being served in schools using an inclusive model, it should be apparent that access to all parts of these schools and their programs is necessary.

The second question asked in this research sought to determine if a non-technical instrument could be developed to assist school administrators in assessing their school's physical and program accessibility, and developing an awareness of accessibility needs. Following a review of the regulations, standards, and the literature, the author was able to develop, field test, and revise an accessibility checklist. In their final review, all principals agreed that the checklist could be used without the assistance of an expert in the field of accessibility assessment, and that "experienced administrators shouldn't have any problems with completing this instrument". All principals involved in the field test concur that the checklist increased their awareness of federal accessibility guidelines, and "gives clarification to previously known federal guidelines". Principals indicated that the instrument would be particularly helpful as they made short and long range plans to improve their school's accessibility. They stated: "The

instrument can assist with the overall plans to make the school site accessible to all students."; "The instrument can assist with the planning to make classes accessible to all students by moving classes, remodeling or purchasing equipment, fixtures, etc."; "The instrument lists information to help plan for an inclusive extra-curricular program by making changes to accommodate the handicapped."; "The instrument provides insight when purchasing equipment and modifying facilities to accommodate technology." and "The instrument increases awareness when planning field trips to various sites.". In addition to the original questions that were answered through the field testing process, it was also discovered that the checklist would assist administrators as they planned and developed in-service training opportunities for teachers involved in the education of students with physical (mobility) disabilities. The checklist "provides much information and many topics to focus on for in-service activities".

The Elementary School Accessibility Checklist was designed to be a non-technical review instrument. It was never intended to substitute for an engineering design study, nor was it designed to be used in judiciary cases involving determination of school accessibility. If schools require more technical information regarding accessibility, they should employ building engineers to produce a design

survey of their facilities.

Suggestions for Further Research

Principals indicated that the Elementary School Accessibility Checklist is useful in determining levels of accessibility for students with physical (mobility) disabilities. The development of additional checklists to assess accessibility for other identified disabilities could be beneficial. The development of checklists to assess accessibility in middle and high school environments could also improve accessibility at those levels.

A follow-up study of the schools assessed during the field testing of the Elementary School Accessibility Checklist would help determine if such an assessment, and the recommendations for changes that accompanied it, resulted in any changes in the schools' physical or program accessibility.

An accessibility awareness and assessment segment should be developed and included in principal preparation programs. Future administrators need current, accurate information on local, state and federal requirements for physical and program accessibility, and training in the assessment of such accessibility.

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Appendix A

Elementary Principal's Interview

Elementary Principal's Interview

Curriculum

1. What core academic courses are part of the curriculum in your school for all children?

2. What are the optional academic courses now offered in your school?

3. What core non-academic classes are part of the curriculum in your school?

4. What optional non-academic classes are now offered at your school?

Extra-Curricular Activities

5. What extra-curricular programs take place at your school that are sponsored by the school?

6. What extra-curricular programs take place at your school, but are sponsored by other groups such as the PTA, 4-H, Girl and Boy Scouts, and city recreation programs?

7. What off campus experiences are your students involved in, that are sponsored by the school?

8. What sports are offered by the school on campus?

9. What sports are school sponsored, but take place off campus?

10. Where do off campus sporting events take place?

Technology

11. What technology is available to students in your building, including computers, calculators, audio-visual equipment, etc?

Appendix B

Elementary Principals' Interviews

Elementary Principal's Interview
Deborah Bushrod
Potomac Elementary School
King George County

Curriculum

1. What are the core academic courses are part of the curriculum in your school for all children?

   ECH - Development Whole Language Programs - Reading, writing, spelling, language
   Mathematics
   Science
   Health
   Social Studies

2. What are the optional academic courses now offered in your school?

   Career Development
   Computer Assistance Program
   a. Introduction to Technology
   b. Computer Programming
   c. Writing to Read Lab

3. What core non-academic classes are part of the curriculum in your school?

   Physical Education
   Music
   Art
   Library
   Computer Lab

4. What optional non-academic classes are now offered at your school?

   Fine Arts Program
   a. Arts
   b. Music
   Instrumental Music
   Chorus
   Dance
   Adaptive Physical Education - provided at request of student or teacher

Extra-Curricular Activities

5. What extra-curricular programs take place at your school that are sponsored by the school?

Student Council
Public Address Club
Math Superstars Program - optional extra math incentives program
Before and After School Program - academic recreation
School Newspaper
Potomac Challenge - Positive Behavior Modification Program
Dial-A-Story

6. What extra-curricular programs take place at your school, but are sponsored by other groups such as the PTA, 4-H, Girl and Boy Scouts, and city recreation programs?

4-H
Latch Key Kid Program
Health and Nutrition Program
Wise Choices Program - Community Services Board
DARE - Sheriffs Department
Boy Scouts
Girl Scouts
Little League
    a. teeball
    b. softball
    c. baseball
Recreation Department
    a. soccer
    b. volleyball
    c. basketball
    d. gymnastics
    e. dance
    f. crafts

7. What off campus experiences are your students involved in, that are sponsored by the school?

Trips to:
Washington D.C.
Fredricksburg
Lurray Caverns
Harbor and Aquarium
Kings Dominion
Virginia Historical Sites
Farms
Museums

Circus
Zoo
Fire Department
Police Department
Courts
Hospital
Live and Movie Theaters
Business Partners
Mental Health Organization - Kids on the Block
Virginia Tech Extension - Chesapeake Exploration Program
Kennedy Center

8. What sports are offered by the school on campus?

Jump Rope for Heart
Inter-grade level team sports

9. What sports are school sponsored, but take place off campus?

None

10. Where do off campus sporting events take place?

None take place

Technology

11. What technology is available to students in your building, including computers, calculators, audio-visual equipment, etc?

Wolf Communication Boards
Computer Touch Windows
Apple II GS Computers
Mackintosh Computers
IBM Computers
VCR
TV
Tape recorders
Listening Stations
Franklin Speller
Overhead projectors
Record Players
Video Cameras
LCD Panel for computers and overhead projectors
Microphones
Calculators

Copy Machines
Filmstrip Projectors
Film Projectors
Opaque Projectors
Microscopes
Language Master

Ethel Porter
Simonsdale Elementary School
Portsmouth Schools

Curriculum

1. What are the core academic courses are part of the curriculum in your school for all children?

   Reading
   Language Arts
   Mathematics
   Science
   Social Studies

2. What are the optional academic courses now offered in your school?

   English as a second language

3. What core non-academic classes are part of the curriculum in your school?

   Art
   Music
   Physical Education
   Program for gifted and talented

4. What optional non-academic classes are now offered at your school?

   None

Extra-Curricular Activities

5. What extra-curricular programs take place at your school that are sponsored by the school?

Just Say No Club - instructional program using high school students
Boy Scouts
Girl Scouts
Little League
Before and After School Programs - assisted by YMCA

6. What extra-curricular programs take place at your school, but are sponsored by other groups such as the PTA, 4-H, Girl and Boy Scouts, and city recreation programs?

None

7. What off campus experiences are your students involved in, that are sponsored by the school?

Trips to:
Science Museum
Farm Fresh Market
McDonald's
Commerce Bank
Farm
Live and Movie Theaters
Circus
Zoo
Naval Base
Virginia Air and Space Museum
General Assembly in Richmond

8. What sports are offered by the school on campus?

None

9. What sports are school sponsored, but take place off campus?

Teeball

10. Where do off campus sporting events take place?

Public Parks

Technology

11. What technology is available to students in your building, including computers, calculators, audio-visual equipment, etc?

Computers - in lab
Calculators
VCR
TV
Tape Recorders
Overhead Projectors
Record Players
Video Camera
Copy Machine

Ray Van Dyke
Linkous Elementary School
Montgomery County

Curriculum

1. What are the core academic courses are part of the curriculum in your school for all children?

   Language Arts - reading, writing, language and spelling
   Mathematics
   Social Studies
   Science
   Health
   Language Arts follow-up - library
   Physical Education

2. What are the optional academic courses now offered in your school?

   English as a second language

3. What core non-academic classes are part of the curriculum in your school?

   Music
   Art
   Physical Education
   Cultural Arts

4. What optional non-academic classes are now offered at your school?

   None

Extra-Curricular Activities

5. What extra-curricular programs take place at your school that are sponsored by the school?

   Odyssey of the Mind - student problem solving program that allows for competition on local, regional, state, national and international levels
   Chorus - after school

6. What extra-curricular programs take place at your school, but are sponsored by other groups such as the PTA, 4-H, Girl and Boy Scouts, and city recreation programs?
   Montgomery County Recreation Department Activities:
   - French
   - Cheerleading
   - Arts and Crafts
   - Stunts and Tumbling
   - 4-H

7. What off campus experiences are your students involved in, that are sponsored by the school?

   Out of Town Trips to:
   - Williamsburg
   - Jamestown
   - Lexington
   - Monticello
   - Apple Orchard
   - Salem Civic Center
   - Hershey, Pennsylvania
   - Gettysburg
   - Dixie Caverns
   - Mill Mountain Zoo

   In Town Trips to:
   - Smithfield Plantation
   - Firehouse
   - Blacksburg Transit
   - Live and Movie Theaters
   - Museums
   - Other division schools
   - Day Camp
   - Warm Hearth Village - nursing home

   Walking Trips to:
   - Virginia Tech
   - Local Museums

Pizza Hut
Town Municipal Building
Doctors Office
Dentist Office
Local Park

8. What sports are offered by the school on campus?

None

9. What sports are school sponsored, but take place off campus?

None

10. Where do off campus sporting events take place?

None take place

Technology

11. What technology is available to students in your building, including computers, calculators, audio-visual equipment, etc?

Computers in classrooms - Apple IIE and GS
Computer Printers
Computer Modems
Writing to Read Lab with IBM computers
Cassette tape recorders
VCR
TV
Overhead projectors
Film projectors
Filmstrip projectors
Opaque projectors
Camcorder
Calculators
Copy machines
Record Players
CD ROM - encyclopedia

Appendix C

Elementary School Accessibility Checklist

DIRECTIONS FOR THE USE OF THE

ELEMENTARY SCHOOL ACCESSIBILITY CHECKLIST

The Elementary School Accessibility Checklist is a self-study instrument designed for independent use by building administrators. The checklist is non-technical instrument designed to assist administrators in assessing their facility and program accessibility, and in developing an awareness of accessibility needs. It is not intended for use in judiciary proceedings involving the determination of accessibility. Following the completions of the checklist, the administrator should complete narrative summary of the school's physical and program accessibility.

METHODS FOR CHECKLIST USE

a. Sample Survey: When using this method, administrators will survey the school building and program accessibility using the checklist guidelines to examine:

1. One classroom on each grade level
3. One bathroom on each building level
3. All stairways
4. All indoor and outdoor passageways
5. All playground areas
6. The cafeteria
7. The library
8. PE, Music, Art, and Library Arts programs
9. Several extra curricular activities taking place in the school
10. One field trip to each of the following locations: historical sites, live or movie theaters, theme or amusement parks, and other educational locations
11. Examples of technology used by all students i.e., computers, tape players, film projectors

b. Complete Survey: When using this method, administrators will survey the school building and program accessibility using the checklist guidelines to examine:

1. All classrooms
2. All restrooms
3. All stairways
4. All indoor and outdoor passageways
5. All playground areas

6. The cafeteria
7. The library
8. PE, Music, Art, and Library Arts programs
9. All extra curricular actives taking place in the school
10. All field trips
11. All technology available to students

DIRECTIONS FOR SCORING ITEMS ON THE CHECKLIST

Items may be scored in the following manner:

a. **MS** - Meets the standard as described in the checklist - if more than one criteria is included in a checklist item, then all criteria must be meet to receive this score

b. **WA** - Meets the standard with provided accommodations (Example - food items should be placed on the counter level - accommodation: an aide or teacher is always available to hand food items from a taller shelf to the counter level where they can be reached by students in wheelchairs.)

c. **NM** - The standard is not met as described in the checklist, and no accommodations are being provided to help meet the standard. (Example- the music room can only be reached by climbing five stairs, no ramp or lift is available to provide access to students with physical (mobility) disabilities.)

d. **DNA** - Does not apply (Example - Sand play areas can be accessed by students in wheelchairs - the school has no sand play area.)

DIRECTIONS FOR COMPLETING THE NARRATIVE SUMMARY

The narrative summary produced using the checklist should include descriptions of the physical facility and school program. It should included the following parts:

a. Background information about the school including grade levels, date when building was completed, description of the facility (one story, two story, multi-building, etc.), and school enrollment.

d. Assessment of accessible routes and building areas using headings as listed in the checklist (Example - accessible routes or parking and loading zones).

c. Assessment of field trip accessibility using headings as listed in the checklist (Example - historical sites).

d. Assessment of curricular accessibility using headings as listed in the checklist (Example- kindergarten).

e. Assessment of technology accessibility using headings determined by the technology that is present in the building (Example - computer).

f. Recommendations for improvements, accommodations or adaptations in all checklist areas.

METHODS FOR COLLECTING DATA

a. Physical assessment of the building and grounds done through visits to all sites, using a tape measurements to assure that guidelines are met.

b. Classroom observations of teachers to determine program accessibility, and program accommodations or adaptations.

c. Interviews with persons involved with extra curricular activities to determine accessibility to those programs and their activities.

d. Interviews with teachers concerning field trips that have taken place or will be taking place within the school year, to determine site accessibility.

e. Observation of types of technology in use in the school to determine if they are accessibility, or if they have or need accommodations and adaptations to make them accessible.

f. If more technical information is needed or desired, the following equipment can be used.
   1. To determine slope of ramps (maximum 1 to 10) - equipment needed - level and yardstick

2. To determine pound strength needed to open doors (maximum 8.5 pounds) - equipment needed - vertical pull scale

Accessible Route Checklist

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
Location - one accessible route from the boundary of the site		
Location - one accessible route connecting accessible buildings, facilities, elements and spaces on the same site		
Surface Texture - must be stable, firm, and slip-resistant		
Surface Texture - all should be even (no curbs lips or other uneven surfaces greater than 1/2 inch		
Surface Texture - accessible routes should not include stairs, steps, or escalators		
Doors - revolving doors or turnstiles may not be the only means of access at the entrance or along an accessible route		
Gates - turnstiles may not be the only means of passage		
Doors - floor or ground area must be level and clear		

Doors - Threshold- external doorways no more than 1/2 inch high		
Door Hardware - must have shape that is easy to grasp with one hand, and does not require tight grasping, pinching, or twisting of the wrist to operate		
Doors - Hardware- mounted no higher than 30 to 34 inches above the floor		
Doors - Panic Bar - 30 to 36 inches above the floor		
Entrances shall be part of accessible routes to public transportation stops, parking and passenger loading zones, and public streets and sidewalks		

Parking and Loading Zones Checklist

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
Parking spaces - located on accessible route to an accessible entrance - if there are multiple accessible entrances then accessible parking spaces should be located by each of them		
Parking Space - Size - at least 96 inches wide		
Parking Space - Signage - designated space reserved by sign showing symbol of accessibility. Sign located so it cannot be obscured by a vehicle parked in the space		
Curb Ramps - Location - shall be provided whenever an accessible route crosses a curb		
Curb Ramp - cannot be obstructed by parked vehicles		

Stairs Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Handrails - Gripping surface mounted between 16 and 26 inches (depending on the age of the children) in addition to handrail at 30 to 34 inches above stair surface		
Physical barriers such as gates or doors should be on exterior stairs		
Physical barriers such as gates, chains, or doors should be on interior stairs		

Elevator Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Accessible elevators shall be on accessible routes		
Call buttons - maximum height 36 inches above the floor		
Call buttons - minimum size 1 1/2 inches to 2 inches		
Call button - up call button on top		
Car control buttons - no higher than 36 inches above the floor		
Audible signals - one sound for up direction and two sounds for down direction, or verbal annunciators that say "up" or "down"		
Surfaces - firm, stable and slip-resistant		
Minimum elevator size Side Door Type -51X68 Center Door Type - 51X80		

Drinking Fountains Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Spout Height - no more than 30 inches above floor		
Pushbar located on front or side		
Clearance - knee space between apron and floor a minimum or 24 inches high, 17 inches deep and 36 inches wide		
Units without clear space under them shall have at least 30 inches by 48 inches clear floor space to allow a parallel approach to the unit		

Water Closet Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Toilet Seat Height - K-3 - 12 to 15 inches 4-6 - 15 to 17 inches		
Grab bars - installed on sides and at back of toilet		
Toilet Stall - located on accessible route		
Toilet Stall Doors - approach clear of obstructions		
Urinals - rim maximum height 14 inches above floor		
Urinals - flush control mounted no more than 30 inches above floor		
Lavatory - mounted no higher than 30 inches above floor		
Lavatory - hot surfaces must be insulated		
Lavatory - must have no sharp or abrasive surfaces		
Lavatory - Faucets - lever or push button		

Bathroom Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Shower Stall - seat installed		
Shower Stall - controls no higher than 36 inches		
Shower Stall - enclosure shall not obstruct transfer from wheelchair to seat		
Sinks - mounted no higher than 30 inches from floor		
Sinks - faucets - lever, push button, tough type, or electronically controlled		
Sinks - hot surfaces must be insulated		
Sinks - must have no sharp or abrasive surfaces		

Telephone Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Public Telephones are required to be accessible		
Mounting Height - highest operable part no higher than 36 inches above floor		
Controls - pushbutton controls where service for such equipment is available		
Telephone Books - located in position that can be reached		
Cord Length - at least 29 inches from telephone to handset		

Libraries Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Reading and Study Areas - adequate seating for number of students with mobility disabilities		
Check-out Areas - maximum height 30 inches above floor		
Card Catalog - passage 44 inches - Height of cabinets - bottom 20 inches above floor - Top no more than 36 inches above floor		
Stacks - no higher than 36 inches		

Seating Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Back and arm height of 12 to 17 inches		
Knee Clearance - 24 inches high, 24 inches deep, and 30 inches wide		
Surfaces - level		
Performing Areas - accessible route shall connect wheelchair seating locations		

Cafeteria Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Access Aisles - at least 36 inches between fixed tables or walls		
Seating - adequate for number of students with mobility disabilities		
Accessible Tables - should be distributed throughout the facility		
Accessible Restrooms - located near by		
Food Service Line - self service - at least one item of each type at height of counter		
Food Service Line - tray slide no more than 30 inches above the floor		
Food Service Line - minimum width 36 inches		
Tableware Areas - top display shelf no higher than 36 inches above floor		

Vending Machines - top of controls no higher than 48 inches from floor		

(Adapted from Accessible Elements and Spaces: Scope and Technical Requirements - Federal Register Vol.56, No. 144/Friday July 26, 1991/Rules and Regulations, and United States Architectural and Transportation Barriers Compliance Board Recommendations for Accessibility Standards for Children's Environments, January, 1992)

Playground Equipment Checklist

Standards	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendations
Access to play equipment by means of hard surface		
Wheelchairs can get up to any play equipment		
At least 10 feet between each piece of equipment		
Swings available that can be reached by students in wheelchairs		
Sand play areas can be accessed by students in wheelchairs		
Signs indicating where to seek help if needed in case of accidents or to seek help in accessing playground equipment		
Drinking fountains are accessible to persons with mobility disabilities		

(Bruya and Langerdorfer, 1988)

Transportation Checklist

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendation
Neighborhood school buses are equipped to accommodate students using crutches (not "special education buses")		
Neighborhood school buses are equipped to accommodate students using walkers (not "special education buses")		
Neighborhood school buses are equipped to accommodate students in wheelchairs (not "special education buses")		
Neighborhood school buses are equipped to accommodate students with limited mobility skills (not "special education buses")		

Curricular Accessibility
Academic Courses

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendation
The classroom or activity area where the course is taught is accessible to students with mobility disabilities		
Passageways to classrooms or activity areas where the course is taught are accessible to students with mobility disabilities		
Tables or desks within the classroom where the course is taught are accessible to students with mobility disabilities		
Equipment used in the course are accessible to students with mobility disabilities		
Tests (written or performance) are prepared to make them accessible to students with mobility disabilities		
Accommodations are made during lectures to make materials presented accessible to student with mobility disabilities		

Chairs within the classroom where the course is taught are accessible to students with mobility disabilities		
Written materials are accessible to students with mobility disabilities		
Accommodations or adaptations are made to allow students with mobility disabilities to complete homework or out of class projects		
Accommodations are made to allow students with mobility disabilities to participate in any performances or out of class activities that are associated with the course		
There is adequate assistance provided by aides or volunteers to allow students with mobility disabilities to participate in the course		
Teacher's pre-service education provided adequate information to deal with the accommodations and adaptations that are needed to assist students with mobility disabilities		
The school division provides adequate in-service education prior to the placement of a child with mobility disabilities in the general education classroom		

A written plan is in place in case of medical emergencies for students with mobility disabilities that may also have other, serious health impairments		
The teacher is aware of procedures to be followed in case of a medical emergency involving students with mobility disabilities		
Written plans are in place in case of behavioral emergencies for students with mobility disabilities that may have serious behavioral problems		
A special educator is available to assist the teacher if problems with accessibility occur		
A special educator is available to assist students with mobility disabilities if problems with accessibility occur		

Curricular Accessibility
Non-Academic Courses
Music

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendation
The classroom or activity area where the course is taught is accessible to students with mobility disabilities		
Passageways to classrooms or activity areas where the course is taught are accessible to students with mobility disabilities		
Tables or desks within the classroom where the course is taught are accessible to students with mobility disabilities		
Equipment used in the course are accessible to students with mobility disabilities		
Tests (written or performance) are prepared to make them accessible to students with mobility disabilities		
Accommodations are made during lectures to make materials presented accessible to student with mobility disabilities		

Chairs within the classroom where the course is taught are accessible to students with mobility disabilities		
Written materials are accessible to students with mobility disabilities		
Accommodations or adaptations are made to allow students with mobility disabilities to complete homework or out of class projects		
Accommodations are made to allow students with mobility disabilities to participate in any performances or out of class activities that are associated with the course		
There is adequate assistance provided by aides or volunteers to allow students with mobility disabilities to participate in the course		
Teacher's pre-service education provided adequate information to deal with the accommodations and adaptations that are needed to assist students with mobility disabilities		
The school division provides adequate in-service education prior to the placement of a child with mobility disabilities in the general education classroom		

A written plan is in place in case of medical emergencies for students with mobility disabilities that may also have other, serious health impairments		
The teacher is aware of procedures to be followed in case of a medical emergency involving students with mobility disabilities		
Written plans are in place in case of behavioral emergencies for students with mobility disabilities that may have serious behavioral problems		
A special educator is available to assist the teacher if problems with accessibility occur		
A special educator is available to assist students with mobility disabilities if problems with accessibility occur		

Curricular Accessibility
Non-Academic Courses
PE

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendation
The classroom or activity area where the course is taught is accessible to students with mobility disabilities		
Passageways to classrooms or activity areas where the course is taught are accessible to students with mobility disabilities		
Tables or desks within the classroom where the course is taught are accessible to students with mobility disabilities		
Equipment used in the course are accessible to students with mobility disabilities		
Tests (written or performance) are prepared to make them accessible to students with mobility disabilities		
Accommodations are made during lectures to make materials presented accessible to student with mobility disabilities		

Chairs within the classroom where the course is taught are accessible to students with mobility disabilities		
Written materials are accessible to students with mobility disabilities		
Accommodations or adaptations are made to allow students with mobility disabilities to complete homework or out of class projects		
Accommodations are made to allow students with mobility disabilities to participate in any performances or out of class activities that are associated with the course		
There is adequate assistance provided by aides or volunteers to allow students with mobility disabilities to participate in the course		
Teacher's pre-service education provided adequate information to deal with the accommodations and adaptations that are needed to assist students with mobility disabilities		
The school division provides adequate in-service education prior to the placement of a child with mobility disabilities in the general education classroom		

A written plan is in place in case of medical emergencies for students with mobility disabilities that may also have other, serious health impairments		
The teacher is aware of procedures to be followed in case of a medical emergency involving students with mobility disabilities		
Written plans are in place in case of behavioral emergencies for students with mobility disabilities that may have serious behavioral problems		
A special educator is available to assist the teacher if problems with accessibility occur		
A special educator is available to assist students with mobility disabilities if problems with accessibility occur		

Curricular Accessibility
Non-Academic Courses
Cultural Arts

Standard	School MS Meets standard WA= Standard met with provided accommodation NM= Does not meet standard DNA= Does not apply	Recommendation
The classroom or activity area where the course is taught is accessible to students with mobility disabilities		
Passageways to classrooms or activity areas where the course is taught are accessible to students with mobility disabilities		
Tables or desks within the classroom where the course is taught are accessible to students with mobility disabilities		
Equipment used in the course are accessible to students with mobility disabilities		
Tests (written or performance) are prepared to make them accessible to students with mobility disabilities		
Accommodations are made during lectures to make materials presented accessible to student with mobility disabilities		

Chairs within the classroom where the course is taught are accessible to students with mobility disabilities		
Written materials are accessible to students with mobility disabilities		
Accommodations or adaptations are made to allow students with mobility disabilities to complete homework or out of class projects		
Accommodations are made to allow students with mobility disabilities to participate in any performances or out of class activities that are associated with the course		
There is adequate assistance provided by aides or volunteers to allow students with mobility disabilities to participate in the course		
Teacher's pre-service education provided adequate information to deal with the accommodations and adaptations that are needed to assist students with mobility disabilities		
The school division provides adequate in-service education prior to the placement of a child with mobility disabilities in the general education classroom		

A written plan is in place in case of medical emergencies for students with mobility disabilities that may also have other, serious health impairments		
The teacher is aware of procedures to be followed in case of a medical emergency involving students with mobility disabilities		
Written plans are in place in case of behavioral emergencies for students with mobility disabilities that may have serious behavioral problems		
A special educator is available to assist the teacher if problems with accessibility occur		
A special educator is available to assist students with mobility disabilities if problems with accessibility occur		

Extra-Curricular Accessibility

Activity

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
The room or area where the activity will take place is accessible to students with mobility disabilities		
Accessible passageways to room or area where the activity takes are available to students with mobility disabilities		
Tables or desks used during the activity are accessible to students with mobility disabilities		
Equipment used during the activity is accessible to students with mobility disabilities		
Accommodations are made during instruction or club meetings to make discussions accessible to students with mobility disabilities		

Accommodations are made to audio and visual technology to make them accessible to students with mobility disabilities		
Written materials used during the activity are accessible to students with mobility disabilities		
Following after school activities, accessible transportation is available for students with mobility disabilities		
If activities involve trips to other locations, accessible transportation is available for students with mobility disabilities		
There is adequate assistance provided by aides or volunteers that will allow students with mobility disabilities to participate in the activity		
A special educator is available to assist the activity leader if students with mobility disabilities have accessibility problems		
A written plan is in place in case of medical emergencies for students with mobility disabilities that may also have other, serious health impairments		

The leader of the activity is aware of procedures to be followed in case of a medical emergency involving students with mobility disabilities		
Written plans are in place in case of behavioral emergencies involving students that may have serious behavior problems		
Efforts are made to make students with mobility disabilities and their families aware of and welcome to activities. Information on adaptations to, or accommodations during the activities is provided.		
Training is provided for activity leaders to furnish information on students with mobility disabilities and what they can do to accommodate these students in their activities		

Technological Accessibility

Technology

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
The room or area where the technology is kept or used is accessible to students with mobility disabilities		
Accessible passageways to rooms or areas where the technology is kept or used are available to students with mobility disabilities		
Tables or desks on which the technology is used are accessible to students with mobility disabilities		
Buttons and keyboards used with technology are accessible to students with mobility disabilities		
Accommodations are made during lectures to make materials presented using technology accessible to students with mobility disabilities		

Accommodations are made to audio and visual technology to make them accessible to students with mobility disabilities		
Written materials about the technology are accessible to students with mobility disabilities		
Accommodations or adaptations are made to allow students with mobility disabilities to complete homework or out of class assignments using technology		
There is adequate assistance provided by aides or volunteers to allow students with mobility disabilities to use the technology that is available to all students		
Teachers are trained in the use and maintenance of technology that may be used by students with mobility disabilities to participate in the school programs		
Students with mobility disabilities are trained in the use of technology that allows them to more completely participate in school programs		

Special educators or technical assistance personnel are available to assist the teacher if problems with accessibility occur when using technology		
Technology needed by students with mobility disabilities is available in the classroom		

Field Trips

Historical Sites

Site _____

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNS= Does not apply	Recommendations
Transportation used from the school to the location is accessible to students with mobility disabilities		
Parking lots have designated spaces for the persons with mobility disabilities		
Walkways from the parking lot to the historic site are accessible to students with mobility disabilities		
Restroom facilities at the site are accessible to students with mobility disabilities		
Drinking fountains at the site are accessible to students with mobility disabilities		
Restaurants at the site that will be used by the students are accessible to students with mobility disabilities		

Picnic areas at the site that will be used are accessible to students with mobility disabilities		
Any forms of mass transportation at the site are accessible to students with mobility disabilities		
Media presentations at the site have seating accommodations for students with mobility disabilities		
Grounds, gardens, etc at the site are accessible to students with mobility disabilities		
There will be an adequate number of aides or volunteers on the trip to assist students with mobility disabilities		
Media presentations at the site have sight and sound accommodations for students with mobility disabilities		

Trips to Amusement or Theme Parks

Park _____

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendation
Transportation used from the school to the park is accessible to students with mobility disabilities		
Parking lots have designated space for persons with mobility disabilities		
Walkways from the parking lot to the park are accessible to persons with mobility disabilities		
Restroom facilities at the park are accessible to students with mobility disabilities		
Drinking fountains at the park are accessible to students with mobility disabilities		
Restaurants at the park that will be used are accessible to students with mobility disabilities		
Park picnic sites are accessible to students with mobility disabilities		

Any forms of mass transportation that will be used at the park is accessible to students with mobility disabilities		
Media presentations at the park have seating accommodations for students with mobility disabilities		
Rides at the park are accessible to students with mobility disabilities		
There will be an adequate number of aides or volunteers on the trip to assist students with mobility disabilities		

Field Trips to Other Educational Locations

Location

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
Transportation used from the school to the location is accessible to students with mobility disabilities		
There is adequate parking for vehicles used by students with mobility disabilities		
Areas around the location are accessible to students with mobility disabilities		
There are restrooms at the location that are accessible to students with mobility disabilities		
There are accommodations made to provide water to students with mobility disabilities if water fountains at the location are not accessible		
Restaurants that will be visited while on the trip are accessible to students with mobility disabilities		

Picnic areas that will be visited while on the trip are accessible to students with mobility disabilities		
Any forms of transportation that will be used while visiting the location are accessible to students with mobility disabilities		
There will be an adequate number of aides or volunteers on the trip to assist students with mobility disabilities		

Movie and Live Theater Field Trips

Theater

Standard	School MS= Meets standard WA= Standard met with provided accommodations NM= Does not meet standard DNA= Does not apply	Recommendations
Transportation used from the school to the theater is accessible to students with mobility disabilities		
Parking lots have designated spaces for the persons with mobility disabilities		
Walkways from the parking lot to the theater are accessible to students with mobility disabilities		
Restroom facilities at the theater are accessible to students with mobility disabilities		
Drinking fountains at the theater are accessible to students with mobility disabilities		
Restaurants at the theater that will be used by the students are accessible to students with mobility disabilities		
Seating will be available to students with mobility disabilities		

There will be an adequate number of aides or volunteers on the trip to assist students with mobility disabilities		

Appendix D

Division Survey

Division Survey

Division Name_____

Special Education Director's Name_____

School Address_____

_____

_____

Demographic Information

1. Division Enrollment - _____

2. At the Elementary Level - K-6 - does your enrollment include students with the following disabilities:

Disability	Yes	No
Learning Disabled		
Emotionally Disturbed		
Physically (Mobility) Disabled		
Multiply Disabled		
Hearing Impaired		
Visually Impaired		
Mildly Mentally Disabled		
Moderately Mentally Disabled		
Severely Mentally Disabled		
Autistic		
Traumatic Brain Injury		
Attention Deficit/Hyperactive Disorder		

3. Using the following definition, is your division currently using an inclusive model for students with disabilities?

> Inclusion means that students with disabilites are educated in supported, heterogeneous, age-appropriate, and natural and student-centered classroom, and school and community environments for the purpose of preparing them for full participation in a diverse and integrated society. The practice of inclusion transcends the idea of physical locations and incorporates basic values that promote participation, friendships and interactions in all aspects of education and community life (CASE Newsletter, April-June 1993).

Yes **No**

4. Does your division currently have a written policy on inclusion?

Yes **No**

(If yes, please include a copy of the written policy when you return this survey.)

5. As part of a study of elementary school accessibility, I will be evaluating several elementary schools in Virginia. Participating school divisions would be asked to identify one school currently serving students with physical (mobility) disabilities in which they will allow me to complete an on site evaluation of physical, technological, extra-curricular and field trip accessibility. Following the evaluation, schools would be given a report on their current level of accessibility, and suggestions on how to further improve accessibility in all areas. Would your school division be willing to participate in this evaluation process?

Yes **No**

Appendix E

Follow-up Letter

December 12, 1993

Dear_____,

Thank you for taking the time to complete and return my initial survey concerning the assessment of school accessibility. On that survey you indicated that you would be interested in participating in the field testing of an Accessibility Checklist.

At this time I would like to provide information on how schools will be chosen for the field test, and what would be involved for those schools participating in the field test of the Accessibility Checklist. Those school divisions indicating an interest in field test participation were divided into two groups, those using an inclusive model and those not using an inclusive model. I will now be choosing one small, one medium and one large school division (based on division pupil population) from each group in which to perform the field test.

I plan to conduct the field test during two day visits to the schools chosen to take part in the study. Following my visit I will be preparing a case study report of the schools physical, curricular, extra-curricular and field trip accessibility. This case study will include suggested ways to improve accessibility to all school program areas.

Participating school divisions will be asked to chose one elementary school within their division in which to have accessibility assessed. Following my completion of the Accessibility Checklist, the school's administrator will be asked to complete the same assessment. I anticipate that it will take the administrators 4 to 6 hours to complete the assessment, since they will be familiar with the school and its programs.

Following the completion of my assessment and the administrators assessment I will be doing a comparison of the results to determine inter-rater reliability. I will also ask that the administrators complete an evaluation of the Accessibility Checklist, so that any needed changes can be made prior to general dissemination of the checklist.

Please indicated you divisions interest in participation in this study on the attached sheet, and return it to me as soon as possible. I will be contacting school divisions still interested in taking part in this study, and setting up my calendar for on-site visits during the first week in January.

Thank you for taking the time to consider participation in the development of the Accessibility Checklist. I hope the results will be of use to your school division and the pupils with disabilities that you serve.

Sincerely,

Deana R. Peterson
Virginia Tech

Response Form

_____School Division continues to be interested in the school accessibility evaluation project, and wishes to be considered for inclusion in the on-site evaluation process.

_____School Division will be unable to participate in the school accessibility on-site evaluation process.

Special Education Director

Address

Phone Number

Appendix F

Case Studies

CASE STUDY 1

Background Information

Facility

The site:

- Is located in the Tidewater area of Virginia
- Houses classrooms for children in kindergarten and grade one (ages 5-7)
- Was built in 1972
- Contains classrooms, all on one level
- Division size - 18,250
- Model of special education - inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: There is an accessible route from the boundary of the site, and from all public transportation stops, parking and passenger loading zones and public streets and sidewalks to the building. The route surfaces are even, stable, firm, and slip-resistant. There are no stairs on the accessible route. The entrances to the site do not have revolving doors, gates or turnstiles. Each entrance is level and clear, with a threshold no higher than 1/2 inch. Outside door hardware required a tight grasp to operate. Inside door hardware consisted of a panic bar mounted 36 inches above the floor.

Parking and Loading Zones: There are designated parking spaces for persons with disabilities at the front, side and end parking areas. All are 138 inches wide, with appropriate signage that is not obscured by parked vehicles. There are curb ramps leading from the designated parking areas to the building. A cut has been made in the front island to allow persons in wheelchairs to cross the island, and continue on to the ramp. The cut away area in the island is not painted to indicate a no parking area. During the site visit, cars were observed parking in front of the cut away area, therefore blocking the path to persons traveling from the parking area to the school.

Stairs: Stairs in the school lead to reading areas in the classrooms. The stairs have handrails mounted at both the 20 inch level and the 33 inch level. The stairs do not lead to any exterior exits.

Elevators: The school is built on one level, with no need for an elevator.

Drinking Fountains: Drinking fountains in the classroom areas have spout levels of 29 1/2 inches from the floor. Knee clearance to the fountains measure 19 1/2 inches high, 20 inches deep, and 40 inches wide. They have pushbars located at the front of the fountain. There is clear space measuring 44X58 at the approach to the fountains. The water fountain located at the cafeteria is 44 inches high, with no pushbar for operation.

Water Closet: General education classroom water closets measure 13 inches in height. Grab bars are installed at the sides of the toilet, but not at the back. All water closets are located on accessible routes, with stall doors clear of obstructions. Urinals have rim heights no greater than 14 inches,and flush controls no higher than 30

inches above the floor. Lavatories located in the classrooms are mounted 28 inches above the floor. They have no sharp or abrasive surfaces. Pipes under the sinks are not insulated. Twist handle faucets are used on all lavatories.

The adult water closet measures 18 inches in height. Grab bars are installed at the sides of the toilet, but not at the back. The water closet is accessible from all parts of the building. The lavatory is 28 inches from the floor, with lever type faucets. There are no sharp or abrasive surfaces on the lavatory, but the pipes are not insulated to prevent burns.

The water closet in the classroom for students with severe disabilities has grab bars installed at the sides of the toilet, but the room itself and the door to the room are so small that a child in a wheelchair could not use the water closet independently.

Bathroom: The bathroom is equipped with a shower, with an installed seat. The controls in the shower are 45 inches from the floor. There is a flexible hose attached to the shower head, for easier use by a person sitting on the shower seat. The bathroom sink is 23 1/2 inches from the floor, with twist type faucets. There are no sharp or abrasive surfaces on the sink, but the pipes are not insulated to prevent burns.

Telephone: There is no public, pay phone in the building. Students and visitors to the building use the office phone if needed. The phone and phone book are on the secretaries desk. The phone is operated by pushbutton controls, and has a cord 36 inches long.

Library: There is adequate seating in the library for students with disabilities. Students in wheelchairs are able to sit at the ends of the library tables when working or reading. The counter of the checkout desk is 30 inches from the floor. The card catalog is located in a passage that is 48 inches wide. The top of the card catalog is 31 inches, and the bottom is 14 inches from the floor. Book stacks are 23 inches high.

Seating: Seats in the school are 13 inches from the floor. Work tables are 22 inches high, 22 inches deep and 30 inches wide. All surfaces leading to seating are level and fully accessible.

Cafeteria: Cafeteria tables are fitted with attached seats on both sides. Persons unable to use these seats sit at the ends of the tables. Aisles between tables are 46 inches wide. Food is served, and table service dispensed from a tray slide 27 1/2 inches above the floor. The food service line is only 26 1/2 wide, too narrow for most wheelchairs. There is not an accessible restroom near the cafeteria.

Playgrounds: Access to playgrounds is via grass surfaces. There is at least 10 feet between each piece of equipment allowing room for wheelchair access. Swings could be accessed by students with mobility disabilities with assistance, but there is no sign indicating where to go for such assistance. There are no drinking fountains on the playgrounds.

Transportation: Students with mobility disabilities are transported to and from school on specially equipped buses, rather than the general

education buses. General education buses are not equipped with lifts to assists students using crutches, walkers or wheelchairs.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Historical Site: Children's Museum - There was no designated parking for persons with disabilities. The buses equipped with lifts had to stop in the street to unload. Walkways to the site were accessible with assistance. There were restrooms in the museum that were accessible. Teachers were unable to recall if drinking fountains were accessible. A lack of wheelchair accessible seating required students in wheelchairs to sit behind the speaker during the media presentation. Many exhibits were inaccessible to students in wheelchairs because of their height, or lack of space under the display for the students legs. There was an adequate number of aides and volunteers accompanying students, to allow for assisted participation in exhibits.

Movie and Live Theater: Willett Theater - Students were transported in accessible buses. There were adequate designated parking spaces and walkways for persons with disabilities. Bathrooms and drinking fountains in the theater were accessible with assistance. Students in wheelchairs were seated in the aisles of the theater. There was an adequate number of aides and volunteers accompanying students for their assistance.

Field Trips to Other Educational Locations: The Pumpkin Patch - Students were transported on accessible buses. Parking and routes to the patch were rock and gravel. These did not allow for the use of wheelchairs, so students had to be carried to the patch. There were no bathrooms or drinking fountains at the patch. Students were allowed to use the restroom in the owner's home, but it was not adapted for persons with disabilities. There was an adequate number of aides and volunteers accompanying students for their assistance.

Field Trips to Other Educational Locations: Coleman's Nursery - Students were transported on accessible buses. There were no designated parking places for persons with disabilities. Walkways, restrooms and drinking fountains were accessible with assistance from the adequate number of aides and volunteers.

Assessment of Technology

Television: The room with, and route to the television are accessible. The television is placed on a raised table, so that operation requires assistance from the teacher or aide. All buttons used on the television are operated by the teacher or aide. While using the television, children without disabilities were asked to stand, and the student in a wheelchair was asked to raise her hands. There are trained teachers and aides available to assist the children with mobility disabilities when using the television. Special educators are available to assist the teacher and students if accommodations are needed when using the television.

Motorized Wheelchair: A kindergarten student has a motorized wheelchair for use at school, but the chair was not in working order during the

observation. Tables in the kindergarten room are too low to accommodate the wheelchair when it is working. The chair is operated independently by the student using a toggle switch. When not in the wheelchair, the student uses a back brace for support. She is then able to participate in floor activities, and to sit in a regular chair. Neither the general education or special education teacher had the expertise needed to repair the motorized chair.

Record Player: The room with, and route to the record player are accessible. The record player is placed on a shelf out of the reach of all children. The teacher is responsible for all record player operation. Students with disabilities are assisted into special seating positions when the record player is used. Teachers are able to maintain the record player's operation. Special educators are available to the teacher and students if accommodations are needed when using the record player.

Blackboard: The rooms with, and routes to the blackboards are accessible. The blackboards are low enough to be reached by students in wheelchairs. There is adequate assistance from teachers and aides to allow students with disabilities to use the blackboards. Teachers require no special skills to maintain the blackboards. Special educators are available to assist students and teachers if accommodations are needed when using the blackboards.

Computer: The room with, and route to the computer is accessible. The table holding the computer has adequate space beneath it to accommodate wheelchairs. No adaptations are currently needed to allow students to use the computer. The teachers have the skills required to maintain the computer. Special educators are available to assist students and teachers if accommodations are needed when using the computer.

Assessment of Curricular Accessibility

Kindergarten: All kindergarten classrooms are accessible, and are located on accessible routes. The children sit at tables rather than desks. The tables are 22 inches high, and 30 inches wide, about 2 inches shorter than is required to accommodate most child sized wheelchair. Classroom audio-visual equipment includes record players, televisions, video cassette players and computers. All children use the equipment with the assistance of an aide or teacher. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The school offers a continuum of special education services, based on the child's needs. This continuum ranges from resource, to co-teaching, to self-contained models. The teacher interviewed felt that she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

Plans are in place, based on Individual Education Plans, in case of behavioral problems. Teachers have verbal, but not written plans in place to deal with medical emergencies involving students with mobility disabilities. Teachers are not required to be certified in CPR or first aide. A school nurse is on duty full time at the school, to deal with medical emergencies.

First Grade: All first grade classrooms are accessible, and are located on accessible routes. There are reading lofts located in some of the classrooms, which can be accessed only by stairs. The children all sit at tables rather than desks. The tables are 22 inches high, and 30 inches wide, about 2 inches shorter than is required to accommodate most child sized wheelchairs. Classroom audio-visual equipment includes record players, televisions, video cassette players and computers. All children use the equipment with the assistance of an aide or teacher. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The first grade classrooms are staffed by an adequate number of aides, teachers and volunteers. The school offers a continuum of services, based on the child's needs. This continuum ranges from resource, to co-teaching, to self-contained models. The teacher interviewed felt the school division adequately prepared for her for the inclusion of students with mobility disabilities. This preparation included visits to the children's prior classroom for observations, interviews with the special education teacher, collaboration during IEP development, and the transfer of a para-professionals from the previous placement to the new classroom. The teacher indicated a lack of pre-service training in the education of students with severe disabilities. There are special educators available to both teachers and students if adaptations or accommodations are needed in the classroom.

Plans are in place, based on the IEP, in case of behavioral problems. Some teachers have also been trained in Physical Crisis Intervention. Teachers have verbal, but not written plans in place to deal with medical emergencies involving students with mobility disabilities. Teachers are not required to have CPR, or first aide certification. A school nurse is on duty full time at the school to deal with medical emergencies.

Physical Education: The gym is accessible, and is located on an accessible route. All equipment used in PE is accessible, or adaptations are made to make the equipment accessible. Accommodations are made during performance tests for students with mobility disabilities.

The PE classes are staffed by a PE teacher. Aides are used to assist the PE teacher with students with mobility disabilities. The PE teacher interviewed did not feel that her pre-service or in-service education adequately prepared her to deal with students with mobility disabilities. There are special educators available to both the PE teacher and students if adaptations or accommodations are needed in the classroom.

Plans are in place in case of medical or behavioral emergencies involving students with mobility disabilities. A school nurse is on duty full time at the school, to deal with medical emergencies.

Music: The music room is accessible, and is located on an accessible route. All equipment in the music room is accessible, although some instruments require assistance from the teacher or an aide. Accommodations are made to allow students with mobility disabilities to participate in performance tests, and out of class performances and activities.

The music program is staffed by a music teacher. Aides are used to assist the music teacher with students with mobility disabilities. The music teacher interviewed did not feel that her pre-service or in-service education adequately prepared her to deal with students with mobility disabilities. There are special educators available to both the music teacher and students if adaptations or accommodations are needed in the music classroom.

Plans are in place to deal with medical and behavioral emergencies in the music classroom. A school nurse is on duty full time at the school, to deal with medical emergencies.

Art: The art room is accessible, and is located on an accessible route. Equipment and supplies used in art are accessible to students with mobility disabilities with assistance from the art teacher or aide. Accommodations are made to all students with mobility disabilities to participate in performance tests, and out of class art activities.

The art program is staffed by an art teacher. Aides are used to assist students with mobility disabilities. The art teacher interviewed did not feel that her pre-service or in-service education adequately prepared her to deal with students with mobility disabilities. There are special educators available to both the art teacher and students if adaptations or accommodations are needed in the art classroom.

Plans are in place to deal with medical and behavioral emergencies in the art classroom. A school nurse is on duty full time at the school, to deal with medical emergencies.

Gifted and Talented Program: The gifted and talented program is located in an accessible classroom, located on an accessible route. Equipment and supplies used in the program are accessible to students with mobility disabilities with assistance from the teacher or aide. Accommodations are made during lectures and audio visual presentations to allow all students to participate.

The gifted and talented program is staffed by a teacher. The teacher feels that her pre-service and in-service education adequately prepared her to deal with students with mobility disabilities. There are special educators available to both the teacher of gifted and talented students and the students if adaptations or accommodations are needed in the classroom.

Plans are in place to deal with medical and behavioral emergencies in the gifted and talented program. A school nurse is on duty full time at the school, to deal with medical emergencies.

Recommendations

Accessible Routes: Outside door hardware should be loops or pushbars, located between 30 and 34 inches above the threshold. The installation of an electric door with pusbutton operation would greatly increase the students freedom within the school.

The cut away area through the island in front of the school leading from the accessible parking area should be painted to indicate a no parking area, so that this area is always kept clear for use by persons with mobility disabilities.

At least one water fountain in each area of the building should be raised to a minimum of 24 inches to allow students' wheelchairs to fit under the fountain for easier access. The fountain by the cafeteria would be more accessible if fitted with a pushbar for operation.

The water closet in the classroom for students with severe disabilities is not adequate in size. All bathrooms equipped with grab bars should have bars in place both on the sides and at the back of the toilet. All lavatories should have insulated pipes to avoid burns. Faucets should be lever or push button, rather than twist types.

Bathroom shower stall controls should be no higher than 36 inches above the floor, with an entrance that is level for access by students in wheelchairs. Sinks in the bathroom should be operated by levers or pushbuttons, and have insulated pipes.

The cafeteria serving line should be at least 36 inches wide to accommodate wheelchairs.

Playground equipment would be independently accessible to students with mobility disabilities if paved walkways lead to the equipment. If such walkways are not available, signs should be posted to indicate where a student can go for assistance to access the equipment.

The use of "special education" buses for students with mobility disabilities keeps students from feeling part of their neighborhood peer group. The elimination of such buses, and the fitting of regular buses with lifts would eliminate this problem.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Technology Accessibility: Because of the young age of students at this school, most technology is used with the assistance of the teacher or aide. However, teachers should be encouraged to seek help from the special educators when adaptations or accommodations are needed with any equipment.

Class Accessibility: Written plans should be in place in every classroom, to assist teachers in dealing with possible medical emergencies. These plans should include who to contact, how that contact will be made, and what to do while waiting for emergency medical

assistance. These plans should be clearly posted for notice by substitute teachers or aides.

Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Possible Funding Sources to Improve School Accessibility

Virginia Assistive Technology Systems Projects (VATS)

1. Creative Initiative Grants

   Grants provided to school divisions for technology to improve accessibility to school programs. These are not grants for computer equipment, but for items such as electric doors, electric pencil sharpeners, switches, etc.

2. Equipment Exchange Listings

   Found in VATS "Connections" newsletter
   The Equipment Exchange List is distributed weekly to organizations throughout Virginia. Caller names and telephone numbers on the list are available to the general public.

Children's Miracle Network

Provides items of a medical nature to individuals and schools. Examples of equipment provided might include therapy tables, therapy balls, mats, etc. You may receive information on the network by contacting the hospital in your area.

Northern Virginia - Children's National Medical Center of Washington D.C.

Charlottesville - Children's Medical Center of the University of Virginia

Norfolk - Children's Hospital of the King's Daughter

Roanoke - Children's Hospital - at Community Hospital of the Roanoke Valley

Lynchburg - Baptist Hospital

Telephone Pioneers

This is a group of retired telephone company personnel. They include engineers that will come into to your school and review your need for accommodations or adaptations. All visits, materials, and devices provided by the Pioneers are free. The main office of the Virginia Pioneers is in Richmond and may be

reached at 804-772-5921. Area local chapters can be reached at the following locations:

C&P Telephone Pioneers
Old Dominion Chapter
3520 Ellwood Avenue
Room 103
Richmond, VA 23221
Attn: Edward Wright
(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

CASE STUDY 2

Background Information

Facility

The site:

- Is located in the Northern Virginia
- Houses classrooms for children in kindergarten through grade 5
- Was built in 1910, with additions in 1935, 1946, and 1972
- Is a two story building, with additional classrooms in located in a former storage building across the playground from the school
- Division size - 4700
- Model of special education - not inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: There is an accessible route from the boundary of the site to all buildings. The route between the main building and the unconnected classrooms is across the blacktop playground, and over a gravel road. The route between the main building and the music room is on a sidewalk, but entrance to the music room is up a small flight of stairs, with no ramp or lift. Routes to areas such as the unconnected classrooms, and the lower playground are over loose gravel, and uneven blacktop. There are no revolving doors or turnstiles on any routes. Doors to the main building are level and clear with thresholds no higher than 1/2 inch. The outside door hardware is the thumb push type, while the inside operates with a panic bar. Both types of hardware are located 35 inches above the ground level. Entrance to the main building is accessible to parking areas and public streets and sidewalks.

Parking and Loading Zones: The designated parking space for persons with disabilities is located in the front of the building, on the street. There is a sign indicating such a reserved space, but it is too low for view if a car is parked in the space. The space is not painted blue to indicate reserved parking, so it is very difficult to determine exactly where the space is located. The space could be 96 inches wide, but if a car or van were that wide, it would be well into the street, possibly causing traffic problems. Entrance to the building from the designated parking space is through the driveway. No curb ramp or cut through is needed for access to the driveway.

Stairs: The stair handrail is located 30 inches above the steps. There is no low rail for use by small children. There are both interior and exterior stairways in the building. Interior stairs have no physical barriers to prevent accidental falls.

Elevator: There is no elevator in the building.

Drinking Fountains: Spout heights of drinking fountains range from 33 inches to 40 inches. All are operated by push buttons. There is not adequate knee clearance between the apron of the fountains and the floor. There is adequate clear space in front of the fountains to allow for a parallel approach to the units.

Water Closets: One bathroom in the building has been equipped for persons with disabilities. It is located on the first floor of the building. It has grab bars located at the sides and back of the toilet. The stall approach is clear of obstructions. The stall has no door. There is no urinal located in the accessible water closet. The sink is mounted 27 inches above the floor, with twist type faucets. There is no insulation on pipes to prevent burns.

Bathroom: The bathroom is located on the second floor, in a room currently being used by the occupational and physical therapist. The shower stall has no installed seat, controls are located 49 inches above the floor, and requires a 6 inch step to get into the stall. The sink in the bathroom is mounted 28 inches above the floor, operates with twist handles, and does not have insulation on pipes.

Telephone: The public phone is located on the first floor of the building. It is mounted on the wall, with the highest operable parts located 55 inches above the floor. It operates with push buttons, and has a cord 36 inches long. There is no phone book at the phone site.

Library: The library is located on the second floor of the building, with no elevator, lift or ramp leading to the location. Tables in the library are too short to accommodate persons in wheelchairs. The checkout desk is 32 inches high. The passage to the card catalog is accessible. The bottom of the card catalog is 22 inches from the floor, and the top is 54 inches from the floor. Stack range in height from 25 inches to 72 inches.

Seating: Seats in public areas are 15 inches from the floor. Seating spaces at tables are 23 inches high, 18 inches deep and 30 inches wide. Seating in classrooms is often at arm desks making them inaccessible to persons in wheelchairs, and difficult to use for persons with limited range of motion.

Cafeteria: The aisles between tables are at least 36 inches wide. Seating for persons in wheelchairs is available at the end of each table. The food service line allows for self service when food items are placed on the tray slide. The tray slide is 33 inches above the floor, with 33 inches of space for the service line. Tableware is located on a shelf 38 inches high. There are no vending machines in the cafeteria. The restroom equipped for persons with disabilities is on an accessible route located near the cafeteria.

Playgrounds: Access to the upper playground is by concrete sidewalk and blacktop. Access to the lower playground is down a sloped area of dirt, grass and mud. Wheelchair access requires assistance. There is 80 inches of space between pieces of equipment. Swings are available that can be reached by students in wheelchairs. There is no sand play area. There are no signs indicating where to go for assistance using the playground or equipment. There are no accessible drinking fountains in the playground area.

Transportation: Students with mobility disabilities are transported to and from school on specially equipped buses, rather than the general education buses. General education buses are not equipped with lifts to assists students using crutches, walkers or wheelchairs.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Historical Site: Mount Vernon - The parking area has designated spaces for persons with disabilities. Walkways from the parking lot to the site are accessible. There are accessible restrooms, drinking fountains, and picnic areas at the site. Students are taken to the site in school buses. Transportation at the site is provided in accessible buses. Media presentations offer accommodations for persons with disabilities. All areas of the site are accessible except the second floor of the mansion. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Movie and Live Theater: Wayside Theater - Transportation to the site was on regular school buses. The parking area has designated spaces for persons with disabilities. Walkways from the parking lot to the theater were accessible. The teacher did not know if accessible restrooms or drinking fountains were located at the site. Seating for persons in wheelchairs was at the back of the theater behind regular seats. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Other Educational Locations: Skyline Caverns - Transportation to the site was on regular school buses. The parking area has designated spaces for persons with disabilities. The area around the site was not accessible to students with mobility disabilities. The teacher did not know if accessible restrooms or water fountains were located at the site, but accommodations were made to provide water for students if accessible fountains were not available. The picnic area was accessible. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Amusement or Theme Parks: The National Zoo - Transportation to the site was in rented buses. There was no need for lift equipped buses. The parking area has designated spaces for persons with disabilities. Walkways from the parking lot to the park were accessible. There were accessible restrooms, drinking fountains, and picnic areas at the zoo. There were no forms of mass transportation, rides or media presentations at the zoo. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Assessment of Technology

Kitchen: The room with the kitchen is located on the first floor and is accessible to students with mobility disabilities. Tables in the kitchen are too high for use by students in wheelchairs. The sink is accessible to students in wheelchairs. The knobs on the stove are located at the back of the stove, and can not be reached by students. This is considered a safety feature. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. Students do not use the kitchen independently, therefore no training is needed for more complete participation in the cooking program. Teachers are not responsible for the maintenance of the equipment. Special educators are available to the teacher and students to assist with problems of accessibility.

Computer: The computer is located on the first floor and is accessible to students with mobility disabilities. It is located on a table that is accessible. No adaptations are needed to the buttons or keyboard to make them accessible. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. There is adequate assistance from aides and volunteers to allow students to use the computer. Teachers are trained in the maintenance of the computer. Students are trained in the use of the computer. Special educators are available to the teacher and students to assist with problems of accessibility.

Television, VCR: The television with VCR is located on the second floor of the building. It is kept on a high shelf not accessible to any students. It is operated only by staff members. Accommodations are made during presentations using the TV and VCR for students with mobility disabilities. There is adequate assistance from aides and volunteers to allow students to use the TV and VCR. Teachers are trained in the maintenance of the TV and VCR. Special educators are available to the teacher and students to assist with problems of accessibility.

Computer Lab: The computer lab is located on the second floor of the building. Computer desks are 26 inches high, with 17 inch chairs. No adaptations are needed to buttons or keyboards to make them accessible. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. There is adequate assistance from aides and volunteers to allow students to use the computers. Teachers indicated that they need more training in the use and maintenance of the computers in the lab. Special educators are available to the teachers and students to assist with problems of accessibility.

Assessment of Extra Curricular Activity Accessibility

Special Olympics: The rooms and passageways used for special olympic activities are accessible. Equipment used during the activities is accessible to students with mobility disabilities. Accommodations for students with mobility disabilities are made during lectures and audio visual presentations. Transportation to special olympic activities is by private cars. There is adequate assistance from aides and volunteers to allow for participation in special olympic activities. Special educators are available to students and activity leaders to assist with problems of accessibility. In case of medical emergencies, ambulances are available at special olympic activities. Plans are in place to deal with behavioral emergencies during activities. Efforts are made to make students and their families aware of special olympic activities. Accommodation training is provided to activity leaders.

Odyssey of the Mind: The auditorium is used for this activity and is located in an accessible area. No students with mobility disabilities currently take part in this activity. Wheelchairs would have to be placed at the back or front of the auditorium. Equipment used during the activity is accessible. Accommodations would be made lectures and audio visual presentations for students in wheelchairs. Parents are responsible for transportation following meetings and trips to other locations for competitions. Adequate assistance would be provided if needed by students with disabilities. Special educators are available to students and activity leaders to assist with problems of

accessibility. There are no plans in place to deal with medical or behavioral emergencies, since no students with disabilities participate in the activity. Announcements are made to all students to encourage their participation in the program.

Assessment of Curricular Accessibility

Kindergarten: All kindergarten classrooms are located on the second floor of the building, with no access by way of lift, ramp or elevator. Currently there are no students with mobility disabilities attending the school's kindergarten. Once on the second floor, passageways to the classrooms are accessible. Tables in the classroom are accessible to students with mobility disabilities. Audio visual equipment within the classroom is accessible, with the assistance of an aide or teacher. Accommodations for lectures, audio visual presentations and homework would be made if needed.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teachers and students if adaptations or accommodations are needed in the classroom.

Plans are not in place to deal with behavioral or medical emergencies involving students with mobility disabilities.

First Grade: All first grade classrooms are located on the accessible first floor, and are located on accessible routes. Tables and desks used by the students are accessible. There is one child with a mobility disability in the first grade. When activities such as PE, library arts, physical and occupational therapy occur on the second floor of the building, he is assisted up and down the stairs by two school employees. Audio visual equipment within the classroom is accessible, with the assistance of an aide or teacher. Accommodations for students with mobility disabilities are made for written materials, lectures, audio visual presentations and homework assignments.

The first grade classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There is an emergency card available for each student in the class in case of a medical emergency. Behavioral plans are those posted and followed by all members of classes.

Second Grade: All classrooms are located on the accessible first floor, and are located on accessible routes. There are currently no children with mobility disabilities in the second grade. Tables in the classroom are 24 inched high. Arm type desks are used by students. Audio visual equipment within the classroom is accessible, with the assistance of an aide or teacher. Accommodations would be made for students with mobility disabilities if needed for written materials, lectures, audio visual presentations and homework assignments.

The second grade classrooms are staffed by teachers, with no assistance from aides. If additional assistance is needed in the classroom, volunteers are used. The teacher interviewed indicated she did not receive adequate training in college to deal with students with disabilities in the regular classroom. A lack of in-service training was also reported. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There is no written plan for medical or behavioral problems involving students with mobility disabilities. There is an intercom that can be used to call for assistance in emergency situations.

Third Grade: Third grade classrooms are located on the second floor of the main building, and in a building across the playground from the main building. Classrooms located in the adjacent building are accessed by climbing four stairs. No ramps, lifts or elevators are in place to assist students with mobility disabilities. There are currently no children with mobility disabilities in the third grade. Tables in the classroom are 27 inched high, with 15 inches high chairs. Audio visual equipment within the classroom is accessible, with the assistance of an aide or teacher. Accommodations would be made for students with mobility disabilities if needed for written materials, lectures, audio visual presentations and homework assignment.

The third grade classrooms are staffed by teachers, with no assistance from aides. If additional assistance is needed in the classroom, volunteers are used. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There is no written plan for medical or behavioral problems involving students with mobility disabilities. There is an intercom that can be used to call for assistance in emergency situations.

Fourth Grade: All fourth grade classrooms are located on the second floor of the building, with no access by way of lift, ramp or elevator. Currently there are no students with mobility disabilities attending the school's fourth grade. Once on the second floor, passageways to the classrooms are accessible. Desks in the fourth grade are 28 inches tall, with 17 inch chairs. Accommodations such as tests being given by the special education teacher, enlargement of work on the copy machine, reduction in the amount of homework, or assistance by an aide during an audio visual presentation would be used if needed by students with mobility disabilities.

The fourth grade classrooms are staff by teachers, and aides as needed. The teachers interviewed felt they were adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teachers and students if adaptations or accommodations are needed in the classroom.

Parents give information concerning medical emergencies for each student. Behavior problems are dealt with using behavior management plans included in the student's IEP.

Fifth Grade: All fifth grade classrooms are located on the second floor, with no access by way of lift, ramp or elevator. Currently there are no students with mobility disabilities attending the school's fifth grade. Once on the second floor, passageways to the classrooms are accessible. Tables in the classrooms are 30 inches high, while desks are 27 inches high with 17 inch high chairs. Students use the overhead projector and filmstrip projector in the classrooms. Assistance from the special education staff would be used to accommodate students during tests or lectures. Homework assignments would be adapted as needed. Possible adaptations might include drawing a story rather than writing.

The fifth grade classrooms are staffed by an adequate number of teachers and aides. The teachers interviewed indicated that their pre-service education did not prepare them to deal with students with disabilities in the classrooms. They did feel that in-service and seminars are provided by the school divisions to help them deal with students with disabilities. There are special educators available to teachers and students is adaptations or accommodations are needed in the classroom.

There is no written plan in place to deal with medical problems involving students with mobility disabilities. The intercoms in the classrooms can be used to call for assistance, but they are not always in working order. Assertive discipline plans are in place to deal with behavioral emergencies in the classroom.

Recommendations

Accessible Routes: Outside door hardware should be loops or pushbars, located between 30 and 34 inches above the threshold. The installation of an electric door with push button operation would greatly increase the students freedom within the school.

The parking space for persons with disabilities should be clearly marked by a sign high enough to be seen above a parked car or van. It would be more appropriate for the space to be located in the parking lot rather than on the street, where a parked van may cause blocked traffic. The parking space should be painted to blue.

Stairs should be equipped with a low handrail between 16 and 26 inches above the ground. Stairways should be protected by barriers to prevent accidents involving persons with mobility disabilities

Elevators, ramps or lifts should be installed to allow access to the second floor of the building, unconnected classrooms and the music room.

Drinking fountains should have spout heights no greater than 30 inches above the floor. The knee clearance between the apron and the floor should be a minimum of 24 inches high, 17 inches deep and 36 inches wide. Fountains should be operated by pushbars located on the front or the side of the fountain.

It would be appropriate to equip the water closet adapted for persons with disabilities with a door for privacy. The sink in the area should be mounted at least 30 inches above the floor, have insulated pipes and be operated by lever or push button faucets.

The bathroom should be equipped with a shower stall that does not have an obstruction to persons in wheelchairs. The shower stall should have an installed seat, and controls should be no higher than 36 inches above the ground. The sink in the area should be mounted no higher than 30 inches from the floor, have insulated pipes and be operated by lever or push button faucets.

The public telephone should have no operating parts higher than 36 inches above the floor.

The library should have tables available that are high enough to accommodate a student in a wheelchair. The checkout area should be no higher than 30 inches above the floor. The card catalog should be no higher than 44 inches from the floor at the top, or no lower than 20 inches from the floor on the bottom. Stacks should be no higher than 36 inches unless there is always assistance available to students in wheelchairs.

The cafeteria food service line should be no higher than 30 inches above the floor. The tableware area should be no higher than 36 inches above the floor.

The playground should be accessible by way of smooth, hard surfaces. All equipment should be at least 10 feet apart. Signs should be posted indicating where a student should go to obtain assist in using the playground equipment.

The use of "special education" buses for students with mobility disabilities keeps students from feeling part of their neighborhood peer group. The elimination of such buses, and the fitting of regular buses with lifts would eliminate this problem.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Class Accessibility: Written plans should be in place in every classroom, to assist teachers in dealing with possible medical emergencies. These plans should include who to contact, how that contact will be made, and what to do while waiting for emergency medical assistance. These plans should be clearly posted for notice by substitute teachers or aides.

The library and physical education rooms should be located on the first floor, or access to the rooms on the second floor should be by way of elevator, ramp or lift.

All grades should have at least one classroom located on the accessible first floor of the main building. This would avoid problems brought on by the sudden enrollment of a child with a mobility disability.

The music room should be equipped with a ramp or lift to allow access for students with mobility disabilities.

Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Technology Accessibility: There should be a TV and VCR available on all levels of the building, and in unconnected buildings, or there should be an elevator, ramp or lift to its second floor location. This would allow for access to all students with mobility disabilities.

Possible Funding Sources to Improve School Accessibility

Virginia Assistive Technology Systems Projects (VATS)

1. Creative Initiative Grants

   Grants provided to school divisions for technology to improve accessibility to school programs. These are not grants for computer equipment, but for items such as electric doors, electric pencil sharpeners, switches, etc.

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   Found in VATS "Connections" newsletter
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Charlottesville - Children's Medical Center of the University of Virginia

Norfolk - Children's Hospital of the King's Daughter

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Lynchburg - Baptist Hospital

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Room 103
Richmond, VA 23221
Attn: Edward Wright
(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

CASE STUDY 3

Background Information

Facility

The site:

- Is located in Southwest Virginia
- Houses classrooms for children in kindergarten through grade six
- Was built in 1982
- Contains classrooms, all on one level
- Division size - 2591
- Model of special education - inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: There is an accessible route from the boundary of the site, and from all public transportation stops, front parking and passenger loading zones and public streets and sidewalks to the building. The route surfaces are even, stable, firm, and slip-resistant. There are no stairs on the accessible route. The entrances to the sides do not have revolving doors, gates or turnstiles. Each entrance is level and clear, with a threshold no higher than 1/2 inch. Outside door hardware is a grasp type, mounted 40 1/2 inches above the ground. Inside door hardware consists of a panic bar mounted 36 inches above the floor.

Parking and Loading Zones: There is a designated parking space for persons with disabilities at the main, front entrance to the building. It is 140 inches wide, with appropriate signage that is not obscured by parked vehicles. There is a curb ramp leading from the designated parking area to the building. The curb ramp is marked and kept clear of obstructions. There is no designated parking for persons with disabilities at the back entrance to the building.

Stairs: Stairs in the school are located at two exits to the playground. There are handrails mounted at the 4 inch, 15 inch, 24 inch and 34 inch levels. Doors block both outdoor exits.

Elevators: The school is built on one level, with no need for an elevator.

Drinking Fountains: There is an accessible drinking fountain located in the lobby of the school. Its spout is 31 inches above the floor, and operated by a pushbar located at the front of the fountain. There is a clear space 28 inches high, 18 inches deep and 28 inches wide under the fountain. There is clear space measuring 43X70 at the approach to the fountain, allowing for a parallel approach to the fountain.

Water Closet: Toilet seat height ranges from 15 inches to 16 inches. Grab bars have been installed at the sides and backs of accessible water closets. All water closets are located on accessible routes, with stall doors clear of obstructions. Urinals have a rim height of 20 inches, and flush control height of 48 inches. Lavatories located in the water closet are mounted 24 inches above the floor, and equipped with lever

type faucets. Pipes under the lavatories are not insulated, and have no sharp or abrasive surfaces.

Bathroom: The bathroom is located in the science room, and is not currently used for student bathing. The shower has an installed seat, with shower controls 46 inches above the floor. The bathroom sink is mounted no higher than 30 inches above the floor, and has lever type faucets. Hot surfaces are not insulated. There are showers located in the gym locker rooms. They are used for storage.

Telephone: The public telephone is located on a 29 1/2 tall desk in the school office. It is operated with pushbutton controls and has a 40 inch cord. The phone book is located on the secretaries desk.

Library: There is adequate seating in the library for students with disabilities. Students in wheelchairs are able to sit at the ends of the 27 inch tall tables, and in the 28 inch tall study carols. The counter of the checkout desk is 39 inches from the floor. The card catalog is located in a passage at least 44 inches wide. The top of the card catalog is 56 inches, and the bottom is 24 inches from the floor. Book stacks are 44 inches high.

Seating: Seats in the school range in height from 15 inches to 18 inches from the floor. Work tables are 28 inches high, 25 inches deep and 30 inches wide. All surfaces leading to seating are level and fully accessible.

Cafeteria: Cafeteria tables are fitted with attached seats on both sides. Persons unable to use these seats sit at the ends of the tables. Aisles between the tables are 48 inches wide. Food is served, and table service dispensed from a tray slide 34 inches above the floor. The food service line is 47 inches wide. Vending machines in the school have controls located 50 and 51 inches above the floor. There is an accessible restroom near the cafeteria.

Playground: The west playground is accessible by means of a hard surface. Wheelchairs can get up to any play equipment. A specially adapted swing is available to students with mobility disabilities.

The east playground area is not accessible by means of a hard surface. Playground equipment is encased in a mulch area, banded by 4 inch logs, with no ramp or opening for persons with mobility disabilities.

Neither playground area has signs indicating where to go for assistance using the equipment. Drinking fountains are not located at either playground area.

Transportation: Students with mobility disabilities are transported on neighborhood buses that are equipped to accommodate students using crutches, walkers and wheelchairs.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Historical Site: Smithfield Plantation - The teacher interviewed did not know if there were designated parking areas, or accessible walkways to the site. Restrooms and drinking fountains at the site were not accessible. The plantation's second floor was not accessible to students with mobility disabilities. The picnic area at the plantation was accessible. Transportation to the site was on accessible school buses. There was an adequate number of aides and volunteers to assist students with mobility disabilities.

Movie and Live Theater: Roanoke Civic Center -"A Christmas Carol" - Students were transported in school buses. There were adequate designated parking spaces and walkways for persons with disabilities. Restrooms and drinking fountains at the center were accessible. Special seating areas were available for persons in wheelchairs. Following the trip to the theater, groups of students stopped at McDonald's, Wendy's, and Hardee's for lunch. All restaurants were accessible. There was an adequate number of aides and volunteers to assist students with mobility disabilities.

Field Trips to Other Educational Locations: Mill Mountain Zoo - Students were transported in school buses. There were adequate designated parking spaces and walkways for persons with disabilities. Restrooms and drinking fountains at the zoo were accessible. The picnic area at the zoo was accessible. Students with mobility disabilities required assistance to ride the train at the zoo.

Assessment of Technology

Computer Media Center: The media center, and the route to the center are accessible. Work stations in the center are accessible. Each computer is equipped with movable keyboard and mouse. A teacher and aide are available to assist students with disabilities. Teachers and students are trained in the use and maintenance of the computers. Special educators are available to assist the teacher and students if accommodations are needed when using the computer media center.

Overhead Projector: The room with, and the route to the overhead projector are accessible. The projector is located on a 34 inch tall table. There are teachers and aides available to assist students with disabilities as they use the overhead projector. Teachers and students are trained in the use and maintenance of the overhead projector. Special educators are available to assist the teacher and students if accommodations are needed when using the overhead projector.

Tape Recorder: The room with tape recorder is accessible. The passage to the recorder is 30 inches wide. It is placed on the floor making it accessible to all students. There are teachers and aides available to assist students with disabilities as they use the tape recorder. Teachers and students are trained in the use and maintenance of the tape recorder. Special educators are available to assist the teacher and students if accommodations are needed when using the tape recorder.

Television/VCR: The room with, and the route to the television and VCR are accessible. The television and VCR are kept on an 36 inch tall, accessible table. There are teachers and aides available to assist students with disabilities as they use the television and VCR. Teachers and students are trained in the use and maintenance of the television

and VCR. Special educators are available to assist the teacher and students if accommodations are needed when using the television and VCR.

Laser Disk Player for VCR: The room with, and the route to the laser disk player are accessible. The laser disk player is kept on a 30 inch tall, 26 inch wide table. The teacher operates the laser disk player. The teacher is trained in the use and maintenance of the laser disk player. Special educators are available to assist the teacher, and students if accommodations are needed when using the laser disk player.

Electric Pencil Sharpener: The room with, and the route to the pencil sharpener are accessible. The sharpener is kept on a table 38 inches high. The teacher and students are trained in the use and maintenance of the sharpener. Special educators are available to assist the teacher, and the students if accommodations are needed when using the electric pencil sharpener.

Assessment of Extra-Curricular Accessibility

Odyssey of the Mind: The room used for the activity, and the route to the activity are accessible. Tables and equipment used during the activity are accessible. Adaptations are made as needed for lectures and materials used during the activity. Parents are responsible for the transportation of students following activities at the school and at other competition locations. The activity is not sponsored by the school, therefore special educators do not assist with accommodations during the activity. There are no plans in place to deal with medical or behavioral emergencies involving students with disabilities.

Chess Club: The room used for the activity, and the route to the activity are accessible. Tables and equipment used during the activity are accessible. Adaptations are made as needed for lectures and materials used during the activity. Parents are responsible for the transportation of students following activities at the school and at other competition locations. The activity is not sponsored by the school, therefore special educators do not assist with accommodations during the activity. There are no plans in place to deal with medical or behavioral emergencies involving students with disabilities.

After Hours Classes: The room used for the activity, and the route to the activity are accessible. Tables and equipment used during the activity are accessible. Adaptations are made as needed for lectures and materials used during the activity. Parents are responsible for the transportation of students following activities at the school. Special educators are available to assist class leaders and students if accommodations are needed during the classes. Plans are in place to deal with medical and behavioral emergencies involving students with disabilities.

Adventure Club: The room used for the activity, and the route to the activity are accessible. Tables and equipment used during the activity are accessible. Adaptations are made as needed for lectures and materials used during the activity. Parents are responsible for the transportation of students following activities at the school and at other competition locations. The activity is not sponsored by the school, therefore special educators do not assist with accommodations during the activity. Personnel involved in the program must be

certified. A custodian is always in the building in case of emergencies.

Assessment of Curricular Accessibility

Kindergarten: All kindergarten classrooms are accessible, and are located on accessible routes. The children sit at tables rather than desks. Tables are 21 inches high and 30 inches wide. Classroom equipment such as blackboards and shelves with drawers are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies. At this time there is no need for written behavior management plans.

First Grade: All first grade classrooms are accessible, and are located on accessible routes. Students sit in arm desks that are 23 inches tall. Blackboards and bookshelves in the classrooms are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The first grade class visited was adequately staffed with a teacher and student teacher. The teacher interviewed felt the school division adequately prepared for her for the inclusion of students with mobility disabilities. There are special educators available to both teachers and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. Plans are in place, based on the IEP, in case of behavioral emergencies.

Second Grade: All second grade classrooms are accessible and on accessible routes. The children sit at tables and desks 23 inches high. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to sit near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The second grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service education was adequate to deal with students with mobility disabilities. Since her employment in the school division, in-service has been provided by special education personnel. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

The teacher interviewed was unaware of any written plans to deal with medical emergencies involving students with mobility disabilities. At the current time, no students in the class require behavior management plans.

Third Grade: All third grade classrooms are accessible, and located on accessible routes. Students sit at tables 23 inches tall, and 30 inches wide. Classroom equipment such as the blackboard, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. The teacher interviewed does not give homework, so no accommodations are needed for students with disabilities.

The third grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed did not feel that her pre-service education was adequate to deal with students with mobility disabilities in her general education classroom. She did feel that the school division provides in-service education to assist in dealing with students with disabilities in the classroom. The are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There is no written plan in place to deal with medical emergencies involving students with mobility disabilities. At the current time, no students in the class required behavior management plans.

Fourth Grade: All fourth grade classrooms are accessible, and located on accessible routes. Students sit at 26 inch tall arm desks. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The fourth grade classroom is staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service and in-service education had failed to provide physical, mobility training. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There is no written plan in place to deal with medical emergencies involving students with mobility disabilities. Plans are in place, based on the IEP, to deal with behavioral emergencies.

Fifth Grade: All fifth grade classrooms are accessible, and located on accessible routes. Students sit at desks 26 inches high, with 16 inch

tall chairs. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The fifth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service and in-service education was adequate to deal with students with mobility disabilities in her classroom. Special educators are available to the teacher and student if adaptations or accommodations are needed in the classroom.

The teacher has a plan in place to deal with medical emergencies involving students with mobility disabilities. The teacher reviews this plan with the students it involves. Plans are in place, based on the IEP, to deal with behavioral emergencies.

Sixth Grade: All sixth grade classrooms are accessible, and are located on accessible routes. The students sit at 29 inch tall arm desks. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and classmates. When homework is assigned, accommodations are made involving assistance from the resource room, and the school library to allow students with mobility disabilities to complete the work in an accessible location.

The sixth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interview felt that his pre-service and in-service education was adequate to deal with students with mobility disabilities in his classroom. There are special educators available to the teacher and students if adaptations or accommodations are needed in the classroom.

There is no written plan in place to deal with medical emergencies involving students with mobility disabilities. Plans are in place, based on the IEP, to deal with behavioral emergencies.

Physical Education: The gym is accessible, and is located on an accessible route. Equipment in the gym is accessible to students with mobility disabilities. Accommodations are made during performance activities and tests to allow students with mobility disabilities to participate,

The physical education program is staffed by a PE teacher, with the assistance from aides accompanying students from their classrooms. The PE teacher felt that she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the PE teacher and students if adaptations are accommodations are needed in the physical education program.

Letters are sent to parents annually, requesting any necessary medical information or restrictions for each students participating in

the physical education program. Plans are in place, based on the IEP, to deal with behavioral emergencies.

Band: The band room is located several steps above the rest of the school building. An electric lift is in place to allow students with mobility disabilities access to the band room. The room is equipped with 25 inch high regular and arm chairs. Equipment and instruments used in band are accessible. Accommodations are made during performance activities and tests to allow students with mobility disabilities to participate.

The band program is staffed by a music teacher. He is not assisted by aides or volunteers. The teacher felt that he was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the band teacher and students if adaptations or accommodations are needed in the band program.

There is no written plan in place to deal with medical emergencies involving students with mobility disabilities. Plans are in place, based on the IEP, to deal with behavioral emergencies.

Recommendations

Accessible Routes: Inside and outside door hardware should be no higher than 30 to 34 inches from the ground. The installation of an electric door with pushbutton operation would greatly increase the student's freedom within the school.

A designated parking area for persons with disabilities is located only at the front of the building. Such a parking area should be designated at the back entrance to the school.

The specially equipped restroom in the front of the building should be marked with a sign, so that individuals needing those accommodations will be able to locate the restroom without special assistance.

The showers located in the science room and gym are not currently in use. If they are put into service, they should have controls lowered to no higher than 36 inches above the floor. Sinks in the shower rooms should have insulation on all hot surfaces and pipes.

The library checkout desk should be no higher than 30 inches above the floor, for access without assistance. The two parts of the card catalog are currently stacked. If the catalog were separated they would meet the guidelines by being no higher than 36 inches above the floor. Library stacks should be no higher than 36 inches above the floor, unless there is always assistance available to students using wheelchairs.

The cafeteria food service tray slide should be no higher than 30 inches above the floor. Vending machines should have controls no higher than 48 inches above the floor.

Access to the playground areas should be via hard, smooth surfaces. An access path should be cut into the 4 inch wooden edge

surrounding the play area, to allow students using wheelchairs access without assistance.

Extra Curricular Accessibility: Plans should be in place that would provide transportation to persons with mobility disabilities if they choose to stay after school and participate in Odyssey of the Mind, the Chess Club and After Hours Classes. Transportation should also be available to allow students with mobility disabilities to travel to events with these groups. Written medical and behavioral emergency plans should be in place for all extra curricular programs. A special educator could be encouraged to assist in extra curricular activities to ensure accessibility.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Technology Accessibility: Technology should be reviewed periodically to be sure that all needed adaptations or accommodations are being done to allow students with mobility disabilities to use the technology.

Class Accessibility: Written plans should be in place in every classroom, to assist teachers in dealing with possible medical emergencies. These plans should include who to contact, how that contact will be made, and what to do while waiting for emergency medical assistance. These plans should be clearly posted for notice by substitute teachers or aides.

Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Regular desks and chairs with arms should be available in all classrooms, in case they are needed by students with mobility disabilities. Tables in lower grades can be raised with blocks if a student with a mobility disability needs to sit at the table in a wheelchair.

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Attn: Edward Wright
(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

CASE STUDY 4

Background Information

Facility

The site:

- Is located in Central Virginia
- Houses classrooms for children pre-school through grade five
- Was built in 1963, with an addition in 1973
- Contains classrooms on four levels
- Division size - 1074
- Model of special education - inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: There is no accessible route to all building levels. The first level may be accessed from the parking lot. Level two may be accessed by following a service road behind the cafeteria, leading to the second level of the building. Level three may be accessed by following the route to level two, and then using a ramp that leads from level two to level three. Level four is accessible only by stairs. Routes on the various levels are stable, firm and slip-resistant. There are no revolving doors or turnstiles on any routes. Each entrance is level and clear, with a threshold no higher than 1/2 inch. Outside door hardware for the office is a pull handle mounted 36 inches above the ground. Classrooms have twist doorknobs on the outside of the doors. The office and classrooms doors are opened with push plates mounted 36 inches above the floor. Entrance to level one is part of an accessible route from the parking area and public streets and sidewalks. The entrance to levels two and three is accessible only from the service road at the back of the building. There are no signs indicating that this route will lead to level two access. There is no marked parking or loading zone at the level two entrance.

Parking and Loading Zones: There is a designated parking space for persons with disabilities in the front of level one, by the cafeteria. The designated space is 126 inches wide, with appropriate signage that is not obscured by parked vehicles. There is a clearly painted curb ramp leading from the parking lot to building level one.

Building level two and three are accessible from the service road behind the cafeteria, but there are no signs indicating that this is an accessible route. There are no designated parking or loading zones at the level two entrance.

Stairs: There are stairs leading to all levels of the building. The stairs leading from level one to level two are equipped with only one handrail, mounted 30 inches above the steps. Stairs leading from level two to levels three and four are equipped with handrails mounted 22 inches and 34 inches above the steps. There are no physical barriers such as gates or doors located at any stairway.

Elevator: There is no elevator or lift between any levels of the school building.

Drinking Fountain: Fountain spout heights range from 26 inches in the lower grades to 28 inches in the upper grades. Fountains are operated with pushbutton faucets. Lower grade fountains have a knee clearance between the apron and floor of 18 inches high, 21 inches wide and 40 inches deep. Upper grade fountains have a knee clearance between the apron and the floor of 22 inches high, 21 inches deep and 48 inches wide. All fountains have clear space measuring at least 42X50 to allow for a parallel approach to the unit.

Water Closet: Water closets are located between classrooms. Toilet seats heights range from 13 inches to 15 inches. No grab bars have been installed by the toilets. Urinals have a rim height of 19 inches, and a flush control height of 38 inches. Lavatories are mounted no higher than 28 inches above the floor. They are operated with twist type faucets. They have no insulation around hot surfaces, and have no sharp or abrasive surfaces.

Bathroom: The bathroom is located in the back of the kitchen area. It is not used by students. It has no installed seat. Its controls are located 50 inches above the floor. There is a 6 1/2 inch threshold leading to the shower. The sink in the bathroom is mounted 31 1/2 inches above the floor, and is operated by twist type faucets. The hot surfaces of the sink are insulated, and there are no sharp or abrasive surfaces on the sink.

Telephone: Students and staff use the telephone located in the school office. It is located on a counter 29 inches tall. It is operated with pushbutton controls, and has a 42 inch cord. The phone book is located by the telephone.

Library: Seating in the library is at tables measuring 28 inches high and 36 inches wide, with chairs measuring 17 inches from the floor. Students in wheelchairs can sit at the ends of the tables. The checkout desk is 32 inches high. The card catalog is located in a passage 80 inches wide. The top of the card catalog is 44 inches, and the bottom is 25 inches from the floor. Book stacks are 45 inches high.

Seating: Seats in the school range in height from 12 to 17 inches. There is knee clearance at least 24 inches high, 24 inches deep and 30 inches wide at tables within the school.

Cafeteria: The cafeteria is located on level one of the building. Access from levels two through four is via stairs or the service road behind the building. Cafeteria tables are fitted with attached seats on both sides. Persons unable to use these seats sit at the ends of the tables. Aisles between the tables are 32 inches wide. Food is served from a tray slide mounted 28 inches above the floor. Tableware is dispensed from a shelf 30 inches high. Vending machines in the school have controls located 56 and 63 inches above the floor. The restroom located near the cafeteria is outside the building and up five steps.

Playground: There is not access to the playground via hard, even surfaces. The front playground equipment is located in a grassy area. Equipment is placed in an area surrounded by a 3 inch board. Pieces of equipment are located 100 inches apart. Students with mobility disabilities cannot access the play area because there is not an opening through, or ramp over the surrounding board.

The pre-school and kindergarten play area is located near the ramp from level two to level three, and is accessed via a sidewalk. Pieces of playground equipment are places at least ten feet apart, and are located in a grassy area.

Neither playground area has signs indicating where to go for assistance using the equipment. Drinking fountains are not located at either playground area.

Transportation: Students with mobility disabilities are transported to school in contracted private cars.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Historical Site: Virginia Military Institute - VMI has designated parking areas for persons with disabilities. Not all locations visited at the site were accessible via walkways from the parking area. Sidewalks at VMI had curb cuts, but many were uphill and movement of students in wheelchairs was difficult. The museum and the Stonewall Jackson House were not accessible. Lee chapel was accessible. The teacher interviewed did not know if their were accessible restrooms at the site. The picnic area at VMI was not accessible. Drinking fountains were operated using twist type faucets. Accommodations were made for the viewing of a filmstrip at the Stonewall Jackson House. Transportation to the site was in regular school buses. There were an adequate number of aides and volunteers to assist students with mobility disabilities.

Movie and Live Theater: Lenfest Dance at the Fine Arts Center - Students were transported in regular school buses. There were adequate designated parking spaces and walkways for persons with mobility disabilities. An elevator lead from the parking area to the theater. Restrooms and drinking fountains at the center were accessible. Special seating areas were available for persons in wheelchairs. There was an adequate number of aides and volunteers to assist students with mobility disabilities.

Field Trips to Other Educational Locations: The Roanoke Airport - Students were transported to the site in private cars. There were adequate designated parking spaces and walkways for persons with mobility disabilities. Restrooms and drinking fountains at the airport were accessible. Students were able to move through the airport using escalators or elevators. Following the trip to the airport, students stopped at Burger King for lunch. The restaurant was accessible. There was an adequate number of aides and volunteers to assist students with mobility disabilities.

Assessment of Technology

Overhead Projector: Located in the Chapter One room - The room is accessible with assistance via the service road behind the cafeteria. Once on the level of the Chapter One room, passageways are accessible. The projector is located on an accessible table, but is controlled only by the teacher. Accommodations for students with mobility disabilities are made during lectures and audio visual presentations. Special

educators are available to the teacher and students to assist with problems of accessibility.

Television: In special education classroom - used to watch "Reading Rainbow" - The room is accessible with assistance via the service road behind the cafeteria. Once on the level of the special education room, passageways are accessible. The television is located on an accessible table. Students are able to use the buttons to turn the television on and off. The teacher operates all other controls. Special educators are available to the teacher and students to assist with problems of accessibility.

Training Telephones: Located in the special education classroom - The room is accessible with assistance via the service road behind the cafeteria. Once on the level of the special education room, passageways are accessible. The training phones are placed on desks when in use. They are operated using rotary dials. Students and teachers are trained in the use of the phones. Special educators are available to the teacher and students to assist with problems of accessibility.

Computer with CD Rom: Located in the library - The library is located on a level that is accessible only via a stairway. Once on that level, passageways are accessible. The Computer with CD Rom is located at an accessible carol in the library. The keyboard is equipped with a cover for its protection. Students and teacher are trained in the use of the computer. There is adequate assistance from the librarian and aide to allow students to use the computer. Special educators accompany students to the library to assist with adaptations or accommodations needed when using the computer and CD Rom.

Assessment of Extra Curricular Activities

Brownies: The Brownie Troop meets in the cafeteria, which is accessible from the front parking lot, via a level walkway. Tables and equipment used in the Brownie meetings are accessible. Currently no students with mobility disabilities are members of the Brownie Troop. Accommodations for students with mobility disabilities would be made during lectures, and audio visual presentations. Transportation is not provided for students with mobility disabilities following troop meetings or to activities taking place at other locations. There would be adequate assistance from volunteers to allow students with mobility disabilities to participate in activities. There is no special educator assigned to assist with Brownie Troop activities. There is no written plan in place to deal with medical emergencies involving students with mobility disabilities. It is not known if the Troop leaders are aware of emergency procedures in case of a medical or behavioral emergency.

Assessment of Curricular Accessibility

Kindergarten: The kindergarten classrooms are located on level three, with access via the service road behind the cafeteria and a ramp from level two to level three. Once on level three, passageways are accessible. Students sit at tables measuring 20 inches high by 35 inches wide. Classroom equipment such as blackboards and shelves with drawers are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would

require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

No written plans are in place to deal with medical emergencies in the classroom. The teacher is aware of emergency procedures that should be followed in case of a medical emergency. At this time there is no need for written behavior management plans.

First Grade: The first grade classrooms are located on a level that may be accessed via the service road behind the cafeteria. Once on that level, passageways are accessible. Students sit at 13 inch tall arm desks. Classroom equipment such as blackboards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned it can be completed at the child's home.

The first grade classrooms are staffed by an adequate number of teachers and volunteers. The teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time there is no need for written behavior management plans.

Second Grade: The second grade classrooms are located on a level that may be accessed via the service road behind the cafeteria. Once on that level, passageways are accessible. Students sit at accessible desks. Classroom equipment such as blackboards and shelves are low and easily accessible with assistance. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned it can be completed at the child's home.

The second grade classrooms are staffed by an adequate number of teachers and volunteers. The teacher interviewed felt she was not adequately prepared through pre-service education to deal with students with mobility disabilities. The school division has provided in-service to assist with students with mobility disabilities in the general education classroom. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed

was aware of emergency procedures that should be followed in case of a medical emergency. At this time there are no written behavior management plans.

Third Grade: The third grade classroom is located on a level that may be accessed via the service road behind the cafeteria. Once on that level, passageways are accessible.
Students sit at tables 22 inches high and desks 29 inches high. Classroom equipment such as the computer, blackboard and bulletin boards are low and easily accessible. Shelves in the classrooms are high, but not used for student books or materials. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned it can be completed at the child's home.

The third grade classrooms are staffed by teachers, but more help from aides and volunteers could be used. The teacher interviewed felt she was not prepared through pre-service education to deal with students with mobility disabilities. The school division has provided adequate in-service education to assist the teacher with students with mobility disabilities in the general education classroom. There are special educators are available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. There are no written behavior management plans even though one third grade child is currently receiving Ritalin for control of inappropriate behaviors.

Fourth Grade: The fourth grade classroom is located on a level that may be accessed via the service road behind the cafeteria. Once on that level, passageways are accessible. Students sit at 26 inch high desks, using 14 inch high chairs. A 29 inch high table is used for group activities. Classroom equipment such as blackboards, bulletin boards, computer and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned it can be completed at the child's home.

The fourth grade classroom is staffed by a teacher and volunteers. Students also go to the Chapter One teacher for additional assistance. The teacher interviewed felt she was not adequately prepared through pre-service education to deal with students with mobility disabilities. She indicated that the school division had provided one in-service at the beginning of the year to assist teachers in dealing with students with mobility disabilities. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time there are IEPs in place, but they do not included written behavior management plans.

Fifth Grade: Fifth grade classrooms are located on level four, and can only be reached by climbing a stairway. Once on that level, passageways are accessible. Students sit at desks that are 30 inches high, with chairs that are 15 inches high. Classroom equipment such as blackboards, bulletin boards and the computer are low and easily accessible. The shelf holding dictionaries is too high to be accessed without assistance. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned it can be completed at the child's home, or in the town library which is accessible to students with mobility disabilities.

The fifth grade classrooms are staffed by an adequate number of teachers and volunteers. Students are also assisted by the resource room teacher. The teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time the teacher is not aware of any written behavior management plans.

Library Arts: The library is located on a level that may be accessed via the service road behind the cafeteria. Once on that level, passageways are accessible. Tables and chairs within the library are accessible with assistance. Classroom equipment such as blackboards, audio visual aides and shelves are accessible with assistance. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. Students are not assigned library homework.

The library is staffed by a librarian with the assistance of classroom aides and volunteers. The librarian interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the librarian and students if adaptations or accommodations are needed in the classroom.

There are no written plans to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time the librarian is not aware of any written behavior management plans.

Physical Education: The PE area is located on level four of the building and is accessible only via a stairway. Once on level four, passageways are accessible. Equipment used in PE classes is adapted for use by students with mobility disabilities. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates.

The PE class is staffed by a qualified PE teacher, assisted by classroom aides. The teacher interviewed felt he was adequately prepared through pre-service and in-service education to deal with

students with mobility disabilities. There are special educators available to both the PE teacher and students if adaptations or accommodations are needed in the PE class.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time there are no written behavior management plans.

Art: The art room is located on level four of the building and is accessible only via a stairway. Once on level four, passageways are accessible. Equipment used in art class is adapted for use by students with mobility disabilities with the assistance of the art teacher. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. No homework is assigned by the art teacher.

The art class is staffed by a qualified art teacher assisted by classroom aides. The teacher interviewed felt she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time there is no need for written behavior management plans.

Music: The music room is located on level four of the building and is accessible only via a stairway. Once on level four, passageways are accessible. Equipment such as the record player, and tape player are located on accessible tables, but are operated only by the music teacher. Instruments are kept on a moveable table, and accommodations are made so that they can be used by students with mobility disabilities. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. No homework is assigned by the music teacher.

The music class is staffed by a qualified music teacher, assisted by classroom aides. The teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the music teacher and students if adaptations or accommodations are needed in the classroom.

There are no written plans in place to deal with medical emergencies involving students with mobility disabilities. The teacher interviewed was aware of emergency procedures that should be followed in case of a medical emergency. At this time there are no written behavior management plans.

Recommendations

Accessible Routes: All levels of the building should be accessible via ramps, lifts or elevators. Inside and outside door hardware should be

mounted no higher than 34 inches above the ground, and should not require a twisting of the wrist to operate. Accessible routes and entrances to the building should be clearly marked. The installation of an electric door with pusbutton operation would greatly increase the students freedom within the school.

The accessible parking and loading zone on level two should be clearly marked. Signs should be in place indicating the route to the second level accessible entrance.

The stairway to the office level should be equipped with additional handrails mounted between 16 and 26 inches above the steps. Gates or chains should be placed at the top of exterior stairways to avoid falls.

Elevators, ramps or lifts should be available to allow students to access all levels of the building.

Drinking fountains should be operated by pushbars located at the front or side of the fountains. Knee clearance between the apron of the fountain and the floor should measure 24 inches high.

Water closets should have grab bars installed at the side and the back of toilets. Restrooms should be accessible on all levels of the building. Urinals should have a rim height no greater than 14 inches above the floor, with flush controls mounted no higher than 30 inches above the floor. Hot surfaces on lavatories should be insulated. Lavatories located in upper grades should be equipped with lever or pushbutton type faucets.

If the bathroom located at the back of the cafeteria is used for students, a shower seat should be installed, and controls lowered to no higher than 30 inches above the floor. The entrance should be made level with the floor. The sink in the bathroom should be mounted no higher than 30 inches above the floor, and should have insulated pipes and be operated by lever or pushbutton faucets.

The library checkout desk should be no higher than 30 inches above the floor. Stacks for books should be no more than 45 inches high, unless there is always someone available to assist students wanting books on high shelves.

Aisles between tables in the cafeteria should be at least 36 inches wide to allow access by students in wheelchairs. The food service line should be at least 36 inches wide. Restrooms near the cafeteria should be made accessible via a ramp or lift. Vending machines should have no controls higher than 48 inches from the floor.

Access to both playgrounds should be by means of a hard surface path. The playground surrounded by boards should have a cut through area or a ramp to allow access to the equipment. Signs should be in place to indicate where to go for help in accessing the playgrounds and equipment. There should be at least 10 feet between each piece of playground equipment.

The use of "special education" buses for students with mobility disabilities keeps students from feeling part of their neighborhood peer

group. The elimination of such buses, and the fitting of regular buses with lifts would eliminate this problem.

Extra Curricular Accessibility: Transportation should be provided for students with mobility disabilities who wish to participate in the Brownie Troop. A special educator may volunteer to assist the Troop in making adaptations or accommodations that are needed for students with mobility disabilities. The leader of the group should be aware of emergency medical and behavioral procedures that may be needed by students with mobility disabilities. There are currently no students with mobility disabilities participating in the Brownie Troop. Such participation should be encouraged.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Technology Accessibility: Technology should be reviewed periodically to be sure that all needed adaptations or accommodations are being done to allow students with mobility disabilities to use the technology.

Class Accessibility: At least one classroom of each grade should be on an accessible level of the building. Art, PE and Music classes should be located on accessible levels of the building, or a ramp, lift or elevator should be installed to allow access to level four of the building.

Written plans should be in place in every classroom, to assist teachers in dealing with possible medical emergencies. These plans should include who to contact, how that contact will be made, and what to do while waiting for emergency medical assistance. These plans should be clearly posted for notice by substitute teachers or aides.

Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Possible Funding Sources to Improve School Accessibility

Virginia Assistive Technology Systems Projects (VATS)

1. Creative Initiative Grants

   Grants provided to school divisions for technology to improve accessibility to school programs. These are not grants for computer equipment, but for items such as electric doors, electric pencil sharpeners, switches, etc.

2. Equipment Exchange Listings

   Found in VATS "Connections" newsletter
   The Equipment Exchange List is distributed weekly to organizations throughout Virginia. Caller names and

telephone numbers on the list are available to the general public.

Children's Miracle Network

Provides items of a medical nature to individuals and schools. Examples of equipment provided might include therapy tables, therapy balls, mats, etc. You may receive information on the network by contacting the hospital in your area.

Northern Virginia - Children's National Medical Center of Washington D.C.

Charlottesville - Children's Medical Center of the University of Virginia

Norfolk - Children's Hospital of the King's Daughter

Roanoke - Children's Hospital - at Community Hospital of the Roanoke Valley

Lynchburg - Baptist Hospital

Telephone Pioneers

This is a group of retired telephone company personnel. They include engineers that will come into to your school and review your need for accommodations or adaptations. All visits, materials, and devices provided by the Pioneers are free. The main office of the Virginia Pioneers is in Richmond and may be reached at 804-772-5921. Area local chapters can be reached at the following locations:

C&P Telephone Pioneers
Old Dominion Chapter
3520 Ellwood Avenue
Room 103
Richmond, VA 23221
Attn: Edward Wright
(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

CASE STUDY 5

Background Information

Facility

The site:

- Is located in Southwest Virginia
- Houses classrooms for children kindergarten through grade 6
- Was built in 1964, with an addition built in 1983
- Division size - 636
- Model of special education - not totally inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: There is an accessible route from the boundary of the site to the building. The route surface is even, stable, firm and slip-resistant. There are no stairs on the route to the building. Entrances to the building have no revolving doors or turnstiles. Doors to the building are located on level routes, but have thresholds measuring one inch. Inside and outside door hardware is easy to grasp and does not require grasping, pinching or twisting of the wrist to open. The hardware is mounted 35 inches above the ground. Inside panic bars are mounted 33 inches above the floor. Doors to classrooms have hardware mounted 33 inches above the ground. Entrance to the building is accessible to parking areas and public streets and sidewalks.

Parking and Loading Zones: There is no designated parking or loading area for persons with disabilities. Parking is available in the front lot, with flat curbs leading from the parking lot to the sidewalk leading to the building.

Stairs: The stair handrails are located at 27 inches and 40 inches above the steps. There are no barriers such as gates located at inside stairways, to prevent accidental falls.

Elevator: The elevator is located on an accessible route. Its inside surface is firm, stable and slip-resistant. Call buttons are mounted 42 inches from the floor on the outside of the elevator, and 39 inches from the floor on the inside of the elevator, and measure 1 1/4 inches in diameter. The up call button is located 35 inches above the floor, and at the top of the button array. There is a single audible tone that sounds when the elevator goes up or down.

Drinking Fountain: Drinking fountain spout height measures 29 inches from the floor. Fountains are operated by a twist type faucet. The clearance space beneath the fountains measures 20 inches high, and 13 inches deep. There is adequate clear space in front of the fountains to allow for a parallel approach to the units.

Water Closet: The building is equipped with water closets that are accessible to persons with mobility disabilities. Toilet height measures 17 inches from the floor. Grab bars are in place at the side and back of the accessible toilet. The stall approach is clear of obstructions. Urinals have a rim height of 19 inches and have controls mounted at 46 inches above the floor. The accessible lavatory is mounted 29 inches above the floor, and is operated with lever type

faucets. There are no abrasive surfaces on the lavatory, and hot surfaces are insulated. A low mirror is located away from the lavatories, for use by small children and persons in wheelchairs.

Bathroom: There is no bathroom, with shower facilities, in the building.

Telephone: The public phone is located on an accessible route. The highest operable part is mounted 46 inches above the floor. The phone is operated by pushbutton, and has a cord measuring 41 inches. The phone book is located at the bottom of the phone.

Library: The library is located on the first floor, on an accessible route. The checkout desk is 32 1/2 inches tall. The passage to the card catalog is 75 inches wide. The bottom of the card catalog is 28 inches from the floor, and the top is 41 inches from the floor. Books can also be located using the libraries computer system. This system is located on at an accessible study carol. Stacks are 65 inches high.

Seating: Seats in public areas are 16 inches from the floor. Seating spaces at tables are 28 inches high, and 36 inches wide. Students in wheelchairs sit at the ends of the tables.

Cafeteria: The aisles between the tables are at least 54 inches wide. Tables are equipped with stools attached to the tables. Students in wheelchairs may sit at the end of these tables, or at tables without attached stools located in the middle of the cafeteria. Food is served from the top of a counter. Teachers or aides are there to assist students who have difficulty reaching the counter. The tray slide is 32 inches above the floor, with 42 inches of space for the service line. Tableware is located on a shelf 39 inches above the floor. Vending machines have money insertion points 47 inches above the floor, and order buttons 58 inches above the floor. There is an accessible restroom located in the front hallway, near the cafeteria.

Playground: The playground can be accessed by means of a hard surface walk. The play area is surrounded by 4 inch boards. The pieces of equipment within the play area are at least 10 feet apart, making them accessible to students with mobility disabilities. There is no sand play area. There are no signs indicating where to go for assistance using the playground or equipment. The drinking fountain located at the playground is operated with a twist type faucet.

Transportation: Students with mobility disabilities are transported to and from school on specially equipped buses, rather than the general education buses. General education buses are not equipped with lifts to assists students using crutches, walkers or wheelchairs.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Movie and Live Theater: Paramount Theater - Transportation to the site was accessible to students with mobility disabilities. The parking area has designated spaces for persons with disabilities. Walkways from the parking lot to the theater are accessible. Drinking fountains and

restrooms were accessible. Seating was available for persons with mobility disabilities. During the trip, students stopped for lunch at Wendy's. The restaurant was fully accessible. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Other Educational Locations: Greenhouse: Students were transported in the cars of parents and volunteers. There was adequate parking at the site for persons with disabilities. Some locations within the greenhouse were difficult for students with mobility disabilities to access. There were no accessible restrooms or drinking fountains. There were adequate aides and volunteers available to accompany and assist students with mobility disabilities.

Assessment of Technology

Tandy Computer Lab: The room used for the computer lab, and the route to the room are accessible. The computers are located on tables that can be accessed with assistance. The computers are equipped with a mouse and keyboard on an extension cord, for easier access by persons with mobility disabilities. Accommodations for students with mobility disabilities are made during lectures and audio visual presentations. There is adequate assistance from teachers and aides to allow students to use the computers. Teachers and students are trained in the use of the computers. Special educators are available to the teacher and students to assist with problems of accessibility.

Television: Located in the library - The library is located on the first floor, on an accessible route. The television is placed on a moveable cart. It is operated only by teachers, therefore no adaptations are needed for its operation. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. There is adequate assistance from teachers and aides to allow students to view programs on the television. Teachers are trained in the use of the television. Special educators are available to the teacher and students to assist with problems of accessibility.

16mm Film Projector: Located in the library - The library is located on the first floor, on an accessible route. The film projector is placed on a moveable cart. It is operated only by teachers, therefore no adaptations are needed for its operation. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. There is adequate assistance from teachers and aides to allow students to view movies from the film projector. Special educators are available to the teacher and students to assist with problems of accessibility.

Overhead Projector: Located in the library - The library is located on the first floor, on an accessible route. The overhead projector is placed on a moveable cart. It is operated only by teachers, therefore no adaptations are needed for its operation. Accommodations for students with mobility disabilities are made during lectures, and audio visual presentations. There is adequate assistance from teachers and aides to allow students to view materials from the overhead projector. Special educators are available to the teacher and students to assist with problems of accessibility.

Assessment of Extra Curricular Activity Accessibility

Recreation League Basketball: The gym is located on the first floor, on an accessible route. Equipment used in the basketball program is made accessible to students with mobility disabilities if requested. Transportation home following the program is provided upon request. The program is operated exclusively by volunteers. A special educator is not assigned to assist with accessibility problems. There are a written plans in place to deal with medical and behavioral emergencies involving students with disabilities. There are currently no students with mobility disabilities involved in the basketball program.

Assessment of Curricular Accessibility

Kindergarten: All kindergarten classrooms are located on the first floor, on accessible routes. Tables in the room are low, and would require lifts if used by a student in a wheelchair. Classroom equipment such as blackboards, bulletin boards, bookshelves and the computer are low and easily accessible. Accommodations are made during lectures to allow students to be near the teacher and other classmates.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt adequately prepared through her pre-service education to deal with students with mobility disabilities. She did not feel that the school district was providing adequate in-service for further development of her skills. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There is a written plan in place to deal with medical emergencies involving students with disabilities. At this time there is no need for written behavior management plans.

First Grade: All first grade classrooms are located on the first floor, on accessible routes. Students sit at arm desks. These would be difficult for students with mobility disabilities to access. Classroom equipment such as blackboards, bulletin boards and bookshelves are low and easily accessible. Accommodations for students with mobility disabilities are made for written materials, lectures, audio visual presentations and homework assignments.

The first grade classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed indicated that she did not receive adequate training in college to deal with students with disabilities in the regular classroom. A lack of in-service training was also reported. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical and behavioral emergencies involving students with disabilities.

Second Grade: All second grade classrooms are located on the first floor, on accessible routes. Students sit at arm desks. These would be difficult for students with mobility disabilities to access. Classroom equipment such as blackboards, bulletin boards and book shelves are low and easily accessible. Accommodation are made for students with

mobility disabilities if needed for written materials, lectures, audio visual presentation and homework assignments.

The second grade classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There is a written plan in place to deal with medical emergencies involving students with mobility disabilities. When no written behavior plans are included in the IEP, the teacher uses her own written plan to deal with behavior emergencies.

Third Grade: All third grade classrooms are located in an area that can only be accessed by descending nine stairs. There is no ramp or lift at the stairway. All students sit at arm desks. These would be difficult for students with mobility disabilities to access. Classroom equipment such as the blackboard and bulletin boards are low and easily accessible. The bookshelves containing reference materials are 47 inches high, and would be difficult to reach without assistance. Accommodations would be made for students with mobility disabilities if needed for written materials, lectures, audio visual presentations and homework assignments.

The third grade classrooms are staffed with an adequate number of teachers. The teacher interviewed had no assistance from an aide. The teacher interviewed felt she was not adequately prepared through pre-service education to deal with students with mobility disabilities. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

Written plans are in place to deal with medical emergencies involving students with mobility disabilities. There is currently no need for written behavioral plans.

Fourth Grade: All fourth grade classrooms are located on the second floor, with access via an elevator. All students sit in arm desks. These would be difficult for students with mobility disabilities to access. Classroom equipment such as blackboards, bulletin boards and book shelves are low and easily accessible. Accommodations are made for the student with mobility disabilities as needed for written materials, lectures, audio visual presentations and homework assignment.

The fourth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. An aide is specifically assigned to the student with mobility disabilities. The teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical and behavioral emergencies involving students with mobility disabilities.

Fifth Grade: All fifth grade classrooms are located on the second floor, with access via an elevator. All students sit at arm desks.

These would be difficult for students with mobility disabilities to access. All educational equipment such as blackboards, bulletin boards and bookshelves are low and easily accessible. Accommodations for students with mobility disabilities are made for written materials, lectures, audio visual presentations and homework assignments.

The fifth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed indicated that she was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities in her classroom. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There is a written plan in place to deal with medical emergencies involving students with mobility disabilities. No plans are currently needed to deal with behavioral emergencies.

Sixth Grade: Sixth grade classrooms are located on the first floor, on accessible routes. All students sit at arm desks. These desks are somewhat difficult to access by the sixth grade student with mobility disabilities. All educational equipment such as blackboards, bulletin boards, computers and bookshelves are low and easily accessible. Accommodations are made for students with mobility disabilities if needed for written materials, lectures, audio visual presentations and homework assignments.

The sixth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. There is an aide specifically assigned to the sixth grade student with mobility disabilities. The teacher interviewed felt he was adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to teachers and students if adaptations or accommodations are needed in the classroom.

There is a written plan in place to deal with medical emergencies involving students with mobility disabilities. No behavior plans are currently needed to deal with behavioral emergencies.

Library Arts: The library is located on the first floor of the building, on an accessible route. Tables and computer carols are accessible to students with mobility disabilities. Access to higher shelves requires the assistance of a staff member or another student. Accommodations for students with mobility disabilities are made for written materials, lectures, and audio visual presentations.

The library is staffed by a librarian and aide. The librarian interviewed indicated that her pre-service education did not prepare her to deal with students with mobility disabilities, but that her in-service education on the subject was adequate. There are special educators available to both the librarian and students if adaptations or accommodations are needed in the library arts program.

Written plans are in place to deal with medical and behavioral emergencies involving students with mobility disabilities while they are in the library.

Physical Education: The gym is accessible, and is located on an accessible route. Equipment in the gym is accessible to students with

mobility disabilities. Accommodations are made during performance activities and tests to allow students with mobility disabilities to participate. During the assessor's observation of the PE program, the student in her wheelchair used her chair, while other students used scooters to play indoor field hockey.

The physical education program is staffed by a PE teacher, with the assistance from aides accompanying students from their classrooms. The PE teacher interviewed felt she was not adequately prepared through pre-service and in-service education to deal with students with mobility disabilities. There are special educators available to both the PE teacher and students if adaptations or accommodations are needed in the PE program.

A written plan is in place to deal with medical emergencies involving students with mobility disabilities. A time out program is used to deal with behavior emergencies during PE class.

Music: The music room is located on the first floor, on an accessible route. The room is equipped with chairs, including chairs with arms. Equipment and instruments used in the music program are accessible. Accommodations are made during performance activities and tests to allow students with mobility disabilities to participate.

The music program is staffed by a music teacher. General education teachers and aides do not accompany students to the music program. The music teacher indicated that her pre-service education did not prepare her to deal with students with mobility disabilities in the regular classroom, but that the in-service offered by the division had been adequate. There are special educators available to both the music teacher and students if adaptations or accommodations are needed in the music program.

Written plans are in place to deal with medical emergencies involving students with mobility disabilities. The music teacher does not have written plans to deal with behavioral emergencies.

Recommendations

Accessible Routes: The thresholds of all doors should be no higher than 1/2 inch. The passageway leading to the third grade rooms should be equipped with a ramp or lift, or there should be at least one third grade classroom on an accessible level within the building. The installation of an electric door with pusbutton operation would greatly increase the students freedom within the school.

A parking and loading area should be designated in the front of the school. It should have at least one parking space that is clearly marked with a sign that can be seen above parked cars or vans. The parking space should be at least 96 inches wide.

Stairs within the school should be equipped with double handrails, one set between 16 and 26 inches above the steps, and one set between 30 and 34 inches above the steps. Physical barriers such as a gate or chain should be in place on interior staircases to avoid accidental falls.

The elevator should be equipped with call buttons at least 1 1/2 inches in diameter, and no higher than 36 inches above the floor. The audible tone in the elevator should sound once when going up, and twice when going down, or the elevator should be equipped with annunciators that say "up" or "down".

Drinking fountains should be equipped with pushbar or lever type faucets. Knee space between the apron and the floor should be a minimum of 24 inches high, 17 inches deep and 36 inches wide.

Accessible urinals in the restrooms should have a rim height no greater than 14 inches, and flush controls no higher than 30 above the floor.

The public phone should have no operable part higher than 36 inches above the floor.

The library checkout desk should be no higher than 30 inches above the floor. The card catalog could be unstacked, so that no part is higher than 36 inches above the floor. For stacks to be totally accessible, they should be no higher than 36 inches above the floor.

The cafeteria food service line should be equipped with a tray slide no higher than 30 inches above the floor. Trays should be placed on the slide tray for students in wheelchairs. Tableware should be on a shelf no higher than 36 inches above the floor. The vending machines should have no controls higher than 48 inches from the floor.

The playground should have an access area cut into the boards, or a ramp built over the boards surrounding the equipment. Signs should be in place indicating where to go for help in accessing the play equipment. The drinking fountain near the playground should be equipped with a pushbar or lever type faucet.

The use of "special education" buses for students with mobility disabilities keeps students from feeling part of their neighborhood peer group. The elimination of such buses, and the fitting of regular buses with lifts would eliminate this problem.

Extra Curricular Accessibility: Students with disabilities should be encouraged to participate in the basketball program. A special educator may be encouraged to assist in the program to supply training and help with adaptations or accommodations that may be needed in the program.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Technology Accessibility: Technology should be reviewed periodically to be sure that all needed adaptations or accommodations are being done to allow students with mobility disabilities to use the technology.

Class Accessibility: Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Regular desks and chairs with arms should be available in all classrooms, in case they are needed by students with mobility disabilities. Tables in lower grades can be raised with blocks if a student with a mobility disability needs to sit at the table in a wheelchair.

At least one classroom of every grade should be located on an accessible level of the building.

Possible Funding Sources to Improve School Accessibility

Virginia Assistive Technology Systems Projects (VATS)

1. Creative Initiative Grants

   Grants provided to school divisions for technology to improve accessibility to school programs. These are not grants for computer equipment, but for items such as electric doors, electric pencil sharpeners, switches, etc.

2. Equipment Exchange Listings

   Found in VATS "Connections" newsletter
   The Equipment Exchange List is distributed weekly to organizations throughout Virginia. Caller names and telephone numbers on the list are available to the general public.

Children's Miracle Network

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Northern Virginia - Children's National Medical Center of Washington D.C.

Charlottesville - Children's Medical Center of the University of Virginia

Norfolk - Children's Hospital of the King's Daughter

Roanoke - Children's Hospital - at Community Hospital of the Roanoke Valley

Lynchburg - Baptist Hospital

Telephone Pioneers

This is a group of retired telephone company personnel. They include engineers that will come into to your school and review your need for accommodations or adaptations. All visits, materials, and devices provided by the Pioneers are free. The main office of the Virginia Pioneers is in Richmond and may be reached at 804-772-5921. Area local chapters can be reached at the following locations:

C&P Telephone Pioneers
Old Dominion Chapter
3520 Ellwood Avenue
Room 103
Richmond, VA 23221
Attn: Edward Wright
(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

CASE STUDY 6

Background Information

Facility

The site:

- Is located in central Virginia
- Houses classrooms for children in kindergarten through grade 6
- Was built in the 1950's
- Division size - 9195
- Model of special education - not inclusive

Assessment of Accessible Routes and Building Areas

Accessible Routes: The route from the parking lot to the school is not accessible due to a lack of curb cuts or ramps. All sidewalks around the school are even, stable, firm, and slip-resistant. Two of the three entrances to the school have stairs, with no ramps or lifts. Entrance doors have pull type hardware mounted 34 inches above the ground, on the outside, and panic bars mounted 35 inches above the ground, on the inside. Door thresholds measure 2 inches above ground level. There are no revolving doors or turnstiles on any routes. Entrance to the building from public transportation stops, parking and loading zones and public streets and sidewalks would be difficult due to the lack of curb cuts or ramps.

Parking and Loading Zones: There are designated parking spaces for persons with disabilities. The parking spaces are at least 96 inches wide. These are clearly marked with signs that can be seen above parked cars or vans. Entrance to the building is difficult due to lack of curb cuts or ramps.

Stairs: There are no stairs at the end entrance to the building. Stairs located by the office and cafeteria entrances to the building have no handrails. Doors form physical barriers to help prevent accidental falls.

Elevator: This is a one story facility that does not require an elevator.

Drinking Fountains: The drinking fountain by the gym has a spout height of 35 inches above the ground. It is operated by a pushbar located on the front of the fountain. It has clear space between the apron and the floor measuring 29 inches high, 20 inches deep and 39 inches wide.

The drinking fountain located in the cafeteria has a spout height of 43 inches. It is operated by a push button. It has no clear space under the fountain. The clear space in front of the fountain measures 24 inches by 70 inches, not sufficient space to allow for a parallel approach to the unit.

Water Closet: The water closet by the cafeteria has a toilet seat height of 16 inches. There are no toilets fitted with grab bars. Urinals have a rim height of 19 inches, and a flush control height of 45 inches. The lavatory is mounted 21 1/2 inches above the floor, and is

operated by twist type faucets. There are no sharp or abrasive surfaces on the lavatory. The pipes beneath the lavatory are not insulated.

The water closet by the gym is equipped with grab bars on the sides and back of the toilet. The water closet is on an accessible route, and the approach to the toilet is clear of obstructions. The lavatory is mounted 28 inches above the floor, and is operated by lever type faucets. There are no sharp or abrasive surfaces on the lavatory, and the pipes beneath the lavatory are insulated.

Bathroom: There is no bathroom equipped with a tub or shower in the facility.

Telephone: The public phone is located in the office and is kept on a 31 inches high counter. It is located on an accessible route. The phone is equipped with pushbutton controls, and a 30 inch long cord from the telephone to the handset. The telephone book is located by the phone.

Library: The library is located on an accessible route. It has adequate seating for students with mobility disabilities. The checkout counter is 32 inches high. The bottom of the card catalog is 31 inches from the floor, and the top is 49 inches from the floor. Stacks range in height up to 83 inches. An aide is assigned to the library to assist students that may have problems reaching higher stacks.

Seating: Seats in public areas range in height from 12 to 17 inches. Seating space at tables is adequate for persons with mobility disabilities. No chairs with arms were observed in the classrooms or other student areas in the building.

Cafeteria: The aisles between tables are 24 inches wide, while the aisle between the tables and the wall is 48 inches wide. Tables have attached stools, but students with mobility disabilities can sit at the ends of the tables. Food is served on the tray slide that measures 30 inches above the floor. Tableware is located on a shelf no more that 36 inches above the floor. The service line is 40 inches wide. Vending machines are located in the teacher's lounge. The money slot is 47 inches, and the selection buttons are 60 inches above the floor. The accessible restroom is not located near the cafeteria.

Playgrounds: Playgrounds can be reached by way of hard surfaces and a few feet of gravel. Students with mobility disabilities can access all play equipment, sand areas and swings, with assistance. There are no signs in place indicating where to go for assistance using the playground equipment. There is an accessible drinking fountain located by the gym.

Transportation: Students with mobility disabilities are transported on specially equipped, small buses, or are brought to school by their parents. General education buses are not equipped with lifts to assist students using crutches, walkers or wheelchairs.

Assessment of Field Trip Accessibility

Prior to field trips, sites are not assessed for their accessibility. Therefore a review of recently visited sites was conducted.

Historical Site: Appomattox - Transportation to the site was on regular school buses with wheelchairs placed in the back of the bus. The teacher did not remember if there were designated parking spaces for persons with mobility disabilities. Pebbles were used on the path to the site, making it difficult for persons with mobility disabilities to use without assistance. There was a ramp at the entrance to the main building, but there were three stairs leading to the ramp. Restrooms and drinking fountains were accessible. The film presented was not accessible to persons with mobility disabilities because it was presented in the upstairs portions of the site. There was an adequate number of aides and volunteers available to accompany and assist students with mobility disabilities.

Movie and Live Theater: Sesame Street Live - Civic Center - Transportation to the site was in regular school buses. The parking area had designated spaces for persons with mobility disabilities. The teacher did not remember if walkways, restrooms or drinking fountains were accessible. Seating for persons with mobility disabilities was available. There was an adequate number of aides and volunteers available to accompany and assist students with mobility disabilities.

Other Educational Locations: Progress Printing - Transportation to the site was in regular school buses. The parking area had designated spaces for persons with mobility disabilities. The areas around the printing shop were accessible. The teacher did not remember if restrooms or drinking fountains were accessible. There was an adequate number of aides and volunteers available to accompany and assist students with mobility disabilities.

Assessment of Technology

Computer Lab: The computer lab is accessible and is located on an accessible route. The computers sit on tables 29 inches high and 30 inches wide. Accommodations are made during lectures and audio visual presentations for students with mobility disabilities. There is adequate assistance from the teacher and aides to allow students with mobility disabilities to use the computer lab. Computers are also available for students use in each classroom. Teachers and students are trained in the use of the computers. Special educators are available to the teachers and students to assist with problems of accessibility.

VCR: The VCR is located in the accessible library. It is kept on a moveable shelf, and is operated only by the staff. Accommodations are made during presentations using the VCR for students with mobility disabilities. Teachers are trained in the use of the VCR. Special educators are available to the teachers and students to assist with problems of accessibility.

Assessment of Extra Curricular Activity Accessibility

Odyssey of the Mind: This activity takes place in the accessible parent teacher center, and the music room. The tables used during the activity are 29 inches high. Equipment used during the activity is accessible. Accommodations would be made lectures and audio visual presentations for students in wheelchairs. Parents are responsible for transportation following meetings and trips to other locations for competitions. Adequate assistance would be provided if needed by students with disabilities. Special educators are available to students and activity

leaders to assist with problems of accessibility. There are no plans in place to deal with medical or behavioral emergencies, since no students with disabilities participate in the activity. Announcements are made to all students to encourage their participation in the program.

County Sports: Recreation League: This activity takes place on the fields outside the school building. There is an accessible walkway to the fields. No student with mobility disabilities currently participates in the recreation league. The program is lead by, and students are assisted by parent volunteers. Special educators would be available to assist with accommodations or adaptations if students with mobility disabilities wanted to participate in the program.

Girl Scouts: The Girl Scout meetings take place in the accessible cafeteria. The tables used during activities, are equipped with stools, so students with mobility disabilities must sit at the ends of the tables. Accommodations are made to written materials, and during lectures to allow students with mobility disabilities to fully participate. Accommodations are made to allow all students to take part in performance activities. The program is lead by, and students are assisted by parent volunteers. Special educators available to assist with accommodations or adaptations needed in the Girl Scout program.

Assessment of Curricular Accessibility

Kindergarten: All kindergarten classrooms are accessible, and are located on accessible routes. The children sit at tables rather than desks. Classroom equipment such as blackboards and shelves with drawers are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates.

The kindergarten classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed did not feel that her pre-service education was adequate to deal with students with mobility disabilities in her general education classroom. She did feel that the school division provides in-service education to assist in dealing with students with disabilities in the classroom. The are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. There is currently no need for behavior management plans.

First Grade: All first grade classrooms are accessible, and are located on accessible routes. The children sit at tables rather than desks. Tables are 21 inches high and 30 inches wide. Classroom equipment such as blackboards and shelves with drawers are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The first grade classrooms are staffed by an adequate number of aides, teachers and volunteers. The teacher interviewed did not feel that her pre-service education was adequate to deal with students with mobility disabilities in her general education classroom. She did feel that the school division provides in-service education, such as sign language training, to assist in dealing with students with disabilities in the classroom. The are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There are written plans are in place to deal with medical emergencies involving students with mobility disabilities. There is currently no need for written behavior management plans.

Second Grade: All second grade classrooms are accessible, and are located on accessible routes. The children sit at desks 27 inches high, with 16 inch chairs. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to sit near the teacher and other classmates. The teacher interviewed does not assign homework.

The second grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service education was adequate to deal with students with learning disabilities, but not students with physical disabilities. Since her employment in the school division, in-service has been provided by special education personnel. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. Written behavior management plans are in place as needed.

Third Grade: All third grade classrooms are accessible, and located on accessible routes. Students sit at desks 29 inches tall, with chairs 18 inches tall. Classroom equipment such as the blackboard, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. The teacher interviewed does not give homework, so no accommodations are needed for students with disabilities.

The third grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service educations was adequate to deal with students with mobility decibels, but that the school division had not provided adequate in-service to prepared for her for the inclusion of students with mobility disabilities in the general education classroom. There are special educators available to both teachers and students if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. Written behavior management plans are in place as needed.

Fourth Grade: All fourth grade classrooms are accessible, and located on accessible routes. Students sit at 24 inch tall desks, and with 16 inch tall chairs. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. The teacher interviewed does not assign homework, so no accommodations are needed.

The fourth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service education had failed to provide physical, mobility training. The school division has provided adequate in-service education in the area of students with mobility disabilities. There are special educators available to both the teacher and student if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. There is currently no need for behavior management plans.

Fifth Grade: Fifth grade classrooms are located in mobile classrooms behind the main building. Students must go down stairs to reach the area of the mobile buildings. There are ramps that lead to the mobile classroom doors. There are currently no students with mobility disabilities in the fifth grade. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and other classmates. When homework is assigned that would require work away from home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The fifth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interviewed felt that her pre-service and in-service education was not adequate to deal with students with mobility disabilities in her classroom. Special educators are available to the teacher and student if adaptations or accommodations are needed in the classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. There is currently no need for behavior management plans.

Sixth Grade: All sixth grade classrooms are accessible, and are located on accessible routes. The students sit at desks that are raised with blocks to accommodate students with mobility disabilities. Classroom equipment such as blackboards, bulletin boards and shelves are low and easily accessible. Accommodations are made during lectures to allow students with mobility disabilities to be near the teacher and classmates. Students with mobility disabilities are allowed to use the computer during testing. No homework is assigned that could not be completed at home.

The sixth grade classrooms are staffed by an adequate number of teachers, aides and volunteers. The teacher interview felt that his pre-service and in-service education was adequate to deal with students with mobility disabilities in his classroom. There are special educators available to the teacher and students if adaptations or

accommodations are needed in the classroom. The teacher interviewed indicated that it would be helpful if the inclusion teacher could spend more time in his classroom.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. Teachers may also review students permanent folders to get more information on their medical problems. Written behavior management plans are in place as needed.

Library Arts: The library is accessible, and is located on an accessible route. Students sit at table 29 inches high, in 17 inch high chairs. The computer used in the class is accessible to students with mobility disabilities. The filmstrip projector is also used in the class, but is operated by the librarian. Accommodations are made to written materials, lectures and audio visual presentations to make them accessible to students with mobility disabilities. When homework is assigned that would require work away from the home, accommodations are made for students with mobility disabilities, so that their work can be completed in an accessible location.

The library is staffed by a librarian and aide. The librarian indicated that her pre-service education was not adequate to deal with students with mobility disabilities in the general education program. The school division has provided adequate in-service education involving students with mobility disabilities. There are special educators available to both the librarian and students if adaptations or accommodations are needed in the library.

There are written plans in place to deal with medical emergencies involving students with mobility disabilities. Written behavior management plans are in place as needed.

Physical Education: The gym is accessible, and is located on an accessible route. All equipment used in PE is accessible, or adaptations are made to make the equipment accessible. Accommodations are made during performance tests for students with mobility disabilities. An interpreter assisted a student during the assessor's observation. When using the jumpropes, a child in a wheelchair participated by turning the rope for other children. The child was taken out of her chair to participate in pushup and situp exercises.

The PE classes are staffed by a teacher. Aides are used to assist the PE teacher with students with mobility disabilities. The PE teacher interviewed indicated that his pre-service adequately prepared him to deal with students with mobility disabilities. He did not feel that the school division provided adequate in-service education prior to placing students with disabilities in the general PE class. There are special educators available to both the PE teacher and students if adaptations or accommodations are needed in the classroom.

Plans are in place in case of medical or behavioral emergencies involving students with mobility disabilities.

Recommendations

Accessible Routes: The passageway from the main building to the mobile units should be equipped with a ramp or lift at the steps leading to the outside of the building. Curb cuts or ramps should be in place near the

designated parking spaces for persons with disabilities. Ramps or lifts should be in place at entrances with stairs, or there should be signs indicating the location of an accessible entrance. Thresholds of accessible entrances should be no more that 1/2 inch high. The installation of an electric door with pusbutton operation would greatly increase the students freedom within the school.

Stairs should be equipped with two sets of handrails. The first should be mounted between 16 and 26 inches, and the second mounted 30 to 34 inches above the ground.

An accessible drinking fountain should be located in the cafeteria area. It should have a spout no higher than 30 inches above the floor, and be equipped with a pushbar for operation. There should be floor clearance of at least 30X48 inches to allow for a clear approach the fountain.

If only one restroom in the building is going to be equipped with an accessible water closet, then there should be signs posted indicating the location of the accessible restroom.

The library checkout desk should be no higher than 30 inches above the floor, for access without assistance. The two parts of the card catalog are currently stacked. If the catalog were separated they would meet the guidelines by being no higher than 36 inches above the floor. Library stacks should be no higher than 36 inches above the floor, unless there is always assistance available to students using wheelchairs.

Tables in the cafeteria should be placed at least 36 inches apart. There should be an accessible restroom located near the cafeteria. Vending machines in the teacher's lounge should have no controls higher than 48 inches above the floor.

The playground should have signs posted indicating where to go for assistance in using the playground and its equipment.

The use of "special education" buses for students with mobility disabilities keeps students from feeling part of their neighborhood peer group. The elimination of such buses, and the fitting of regular buses with lifts would eliminate this problem.

Field Trip Accessibility: Prior to any future field trips, an assessment of the location for accessibility would be recommended. A copy of the field trip accessibility checklist accompanies this report. It's use would eliminate visits to sites that are not accessible to all students.

Technology Accessibility: Teachers should be encouraged to seek help from the special educators when adaptations or accommodations are needed with any equipment.

Class Accessibility: At least one classroom of each grade should be in an accessible portion of the building.

Additional in-service opportunities should be available for those teachers who do not feel adequately prepared to deal with students with mobility disabilities.

Possible Funding Sources to Improve School Accessibility

Virginia Assistive Technology Systems Projects (VATS)

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   Grants provided to school divisions for technology to improve accessibility to school programs. These are not grants for computer equipment, but for items such as electric doors, electric pencil sharpeners, switches, etc.

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(804)772-5921

AT&T Pioneers
George Washington Chapter
4121 Cox Road
Suite 210
Glen Allen, VA 23060
Attn: Walter Cook
(804)527-5457

Appendix G

Building Administrators Evaluation

Building Administrators Evaluation

Instructions: Please answer the following questions as completely as possible. Your answers will be used to improve the Accessibility Checklists and On-site evaluations of elementary school accessibility.

Conceptual Clarity

1) Did the evaluation plan provide a clear picture of what was to be evaluated and how the evaluation would take place?

Yes No

Comments_____

_____

_____

Characterization of the object of the evaluation

2) Did you clearly understand that all classrooms, restrooms, activity areas, buildings and grounds would be included in the accessibility evaluation?

Yes No

Comments_____

_____

_____

Sensitivity to political problems in evaluation

3) Did the fact that your building was being evaluated for accessibility cause any problems with the following stakeholders in your division:

Parents - Yes No

Students - Yes No

Building Staff - Yes No

School Administration - Yes No

School Board - Yes No

Comments_____

_____

_____

Specifications of information needs and sources

4) Will the inclusion of the completed checklists assist you as you plan for accessibility improvements?

Yes No

Comments_____

_____

Consideration of Costs

5) If your school division chose to complete this evaluation independently would the cost of personnel involved be:

Too High - Yes No

Acceptable - Yes No

Comments_____

_____

Explicit Standards/Criteria

6) Were the standards listed on the checklist clear, and measurable?

Yes No

Comments_____

_____

_____

Comprehensiveness/Inclusiveness

7) Were all areas of your school building and grounds addressed in the *Physical Accessibility Checklist*?

Yes No

If no, list areas that were not addressed_____

_____

_____

8) Were all areas of your school's curriculum addressed in the *Curriculum Accessibility Checklist*?

Yes No

If no, list areas that were not addressed_____

_____

9) Were all areas of your school's extra-curricular activities addressed in the *Extra-Curricular Activity Checklist*?

Yes No

If no, list areas that were not addressed_____

_____

_____

10) Were all areas of your school's technology addressed in the *Technology Checklist*?

Yes No

If no, list areas that were not addressed_____

_____

_____

11) Were all of your school's possible field trip activities addressed in the *Field Trip Checklist*?

Yes No

If no, list areas that were not addressed_____

_____

_____

Judgements and/or Recommendations

12) **Are there specific changes that should be made to the checklists to make them more useful to building administrators?**

13) **Are there changes that should be made to make the checklist easier for building administrators to use?**

Appendix H

Final Review of the Elementary School Accessibility Checklist

FINAL REVIEW OF THE
ELEMENTARY SCHOOL ACCESSIBILITY CHECKLIST

1. Will this instrument assist in:

   a. Determining the school building's level of accessibility to students with physical (mobility) disabilities?

      Yes No

      Comments _____

      _____

      _____

   b. Determining the school ground's level of accessibility to students with physical (mobility) disabilities?

      Yes No

      Comments _____

      _____

      _____

   c. Determining accessibility for students with physical (mobility) disabilities to the classes offered by the school?

      Yes No

      Comments _____

      _____

      _____

d. Determining accessibility for students with physical (mobility) disabilities to the extra-curricular programs offered by the school?

Yes No

Comments _____

_____

_____

e. Determining accessibility for students with physical (mobility) disabilities to the technology available in the school?

Yes No

Comments _____

_____

_____

f. Determining accessibility for students with physical (mobility) disabilities to field trip experiences offered by the school?

Yes No

Comments _____

_____

_____

2. Will the instrument assist in:

a. Short range planning for building accessibility improvements?

Yes No

Comments _____

_____

_____

b. Long range planning for building accessibility improvements?

Yes No

Comments _____

_____

_____

c. Planning for in-service activities to assist teachers as they make their classes more accessible to students with physical (mobility) disabilities?

Yes No

Comments _____

_____

_____

3. Does the instrument increase your awareness of federal accessibility guidelines?

Yes No

Comments _____

_____

_____

4. Are the instructions included at the beginning of the instrument clear?

Yes No

Comments _____

_____

_____

5. Could building administrators use the instrument to determine their school's level of accessibility, without the assistance of an expert in the field of accessibility?

Yes No

Comments _____

_____

_____

6. Are there any additional comments you wish to make about the Elementary School Accessibility Checklist?

Comments _____

_____

_____

Appendix I

School Summaries

School Summary 1

Comparison of Scores given by Assessor and Scores given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
School Areas								
1. School Bus	4	0.00	.000	t cannot* be calculated	4	2.00	.000	t cannot* be calculated
2. Playground	7	0.85	.142	1.00	7	0.71	.142	1.00
3. Cafeteria	9	1.44	.000	0.00	9	1.44	.000	0.00
4. Seating	4	1.50	.000	0.00	4	1.50	.000	0.00
5. Library	4	2.00	.250	1.00	4	1.75	.250	1.00
6. Parking	5	2.00	.244	2.44*	5	1.40	.244	2.44*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 1 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
7. Routes	13	1.69	.000	0.00	13	1.69	.000	0.00
8. Watercloset	9	1.22	.235	-1.41	9	1.55	.235	-1.41
9. Telephone	5	1.20	.000	0.00	5	1.20	.000	0.00
10. Bathroom	6	0.83	.542	0.30	6	0.66	.542	0.30
11. Water Fountain	4	1.00	.500	1.00	4	0.50	.500	1.00
12. Stairs	2	1.00	0.00	0.00	2	1.00	0.00	0.00
Technology								
1. Television	12	1.83	.166	1.00	12	1.66	.166	1.00

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 1 (con't)

Program Area	Assessor Count	M	SEM	t	Principal Count	M	SEM	t
2. Electric Wheelchair	12	1.75	.207	0.80	12	1.58	.207	0.80
3. Record Player	13	1.76	.201	1.14	13	1.53	.201	1.144
4. Black Board	13	1.69	7.69	-1.0	13	1.76	7.69	-1.0
Field Trips								
1. Museum	12	0.75	.148	-.56	12	0.83	.148	-.56
2. Theater	8	1.37	.125	1.00	8	1.25	.125	1.00
3. Pumpkin Patch	9	0.44	.000	0.00	9	0.44	.000	0.00
4. Nursery	11	0.90	.121	1.49	11	0.72	.121	1.49

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 1 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
2. Electric Wheelchair	12	1.75	.207	0.80	12	1.58	.207	0.80
3. Record Player	13	1.76	.201	1.14	13	1.53	.201	1.144
4. Black Board	13	1.69	7.69	-1.0	13	1.76	7.69	-1.0
Field Trips								
1. Museum	12	0.75	.148	-.56	12	0.83	.148	-.56
2. Theater	8	1.37	.125	1.00	8	1.25	.125	1.00
3. Pumpkin Patch	9	0.44	.000	0.00	9	0.44	.000	0.00
4. Nursery	11	0.90	.121	1.49	11	0.72	.121	1.49

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 1 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
Classes								
1. Grade K	15	1.80	.106	1.87*	15	1.60	.106	1.87*
2. Grade 1	15	1.66	.000	0.00	15	1.66	.000	0.00
3. Art	16	1.56	.062	1.00	16	1.50	.062	1.00
4. Music	16	1.43	.062	1.00	16	1.37	.062	1.00
5. PE	16	1.43	.170	0.36	16	1.37	.170	0.36
6. Library Arts	15	1.46	.106	1.87*	15	1.26	.106	1.87*
7. Computer Technology	13	2.00	.174	1.75*	13	1.69	.174	1.75*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 2

Comparison of Scores given by Assessor and Socres given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SED	t	Count	M	SED	t
School Areas								
1. School Bus	4	1.00	.000	0.00	4	1.00	.000	0.00
2. Playground	7	0.71	.297	-1.44	7	1.14	.297	-1.44
3. Cafeteria	9	1.33	.408	0.81	9	1.00	.408	0.81
4. Seating	4	2.00	.000	0.00	4	2.00	.000	0.00
5. Library	4	0.00	.500	-1.00	4	0.50	.500	-1.00
6. Parking	5	1.20	.489	-1.63	5	2.00	.489	-1.63
7. Routes	13	0.92	.243	-1.89*	13	1.38	.243	-1.89*
8. Water Closet	9	0.88	.293	1.51	9	0.44	.293	1.51

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 2 (con't)

	Assessor				Principal			
Program Area	Count	M	SED	t	Count	M	SED	t
9. Telephone	5	1.20	.489	1.63	5	0.40	.489	1.63
10. Bathroom	6	0.33	.000	0.00	6	0.33	.000	0.00
11. Water Fountain	4	0.50	.500	1.00	5	0.00	.500	1.00
12. Stairs	2	0.00	1.00	-1.00	2	1.00	1.00	-1.00
Technology								
1. Computer Lab	13	1.23	.249	0.61	13	1.07	.249	0.61
2. Television VCR	13	1.69	.191	-.80	13	1.84	.191	-.80
3. Computer	13	2.00	.000	0.00	13	2.00	.000	0.00
4. Kitchen	13	1.07	.264	-.29	13	1.15	.264	-.29

*Denotes significant differences in area scores between the assessor and principal at the $p<.05$ level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 2 (con't)

Program Area	Assessor Count	M	SED	t	Principal Count	M	SED	t
Extra Curricular Activities								
1. Bowling	15	1.80	6.66	-1.0	15	1.86	6.66	-1.0
2. Odyssey of the Mind	15	1.60	.190	-2.10*	15	2.00	6.66	-2.10*
Field Trips								
1. Mount Vernon	12	1.66	8.33	-1.0	12	1.75	8.33	-1.0
2. Wayside Theater	8	1.12	.250	1.00	8	0.87	.250	1.00
3. Skyline Caverns	9	1.33	.333	-1.0	9	1.66	.333	-1.0
4. Mill Mountain Zoo	11	1.09	9.09	-1.0	11	1.18	9.09	-1.0

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 2 (con't)

Program Area	Assessor Count	Assessor M	Assessor SED	Assessor t	Principal Count	Principal M	Principal SED	Principal t
Classes								
1. Grade K	15	1.60	.181	-1.4	15	1.86	.181	-1.4
2. Grade 1	15	2.00	.000	0.00	15	2.00	.000	0.00
3. Grade 2	15	1.60	.163	-2.4*	15	2.00	.163	-2.4*
4. Grade 3	15	1.53	.144	-1.38	15	1.73	.144	-1.38
5. Grade 4	15	1.86	6.66	-1.0	15	1.93	6.66	-1.0
6. Grade 5	15	1.73	.106	-1.8*	15	1.93	.106	-1.8*
7. PE	16	1.50	.182	-2.7*	16	2.00	.182	-2.7*

*Denotes significant difference in area scores between the assessor and the principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 3

Comparison of Scores given by Assessor and Scores given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
School Areas								
1. School Bus	4	2.00	.000	0.00	4	2.00	.000	0.00
2. Playground	7	.571	.404	-2.1*	7	1.42	.404	-2.1*
3. Cafeteria	9	1.77	.560	-1.5	9	2.00	.560	-1.5
4. Seating	4	2.00	.000	0.00	4	2.00	0.00	0.00
5. Library	4	1.00	.408	-2.4*	4	2.00	.408	-2.4*
6. Parking	7	1.85	.142	-1.0	7	2.00	.142	-1.0
7. Routes	13	1.84	.153	-1.0	13	2.00	.153	-1.0

*Denotes significant difference in area scores between the assessor and the principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 3 (con't)

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
8. Water Closet	9	1.33	.333	-2.0*	9	2.00	.333	-2.0*
9. Telephone	5	2.00	.000	0.00	5	2.00	.000	0.00
10. Bathroom	6	1.33	.421	-1.5	6	2.00	.421	-1.5
11. Drinking Fountain	4	2.00	.000	0.00	4	2.00	.000	0.00
Technology								
1. Electric Pencil Sharpener	13	1.53	.243	-1.8*	13	2.00	.243	-1.8*
2. Laser Disk	13	2.00	.000	0.00	13	2.00	.000	0.00
3. Television VCR	13	1.84	.153	-1.0	13	2.00	.153	-1.0

*Denotes significant difference in area scores between the assessor and the principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 3 (con't)

Program Area	Assessor Count	M	SEM	t	Principal Count	M	SEM	t
4. Tape Player	13	1.84	.153	-1.0	13	2.00	.153	-1.0
5. Overhead Projector	13	1.92	7.69	-1.0	13	2.00	7.69	-1.0
6. Computer	13	2.00	.000	0.00	13	2.00	.000	0.00
Field Trips								
1. Mill Mountain Zoo	9	1.88	.111	-1.0	9	2.00	.111	-1.0
2. Movie Theater	8	2.00	.000	0.00	8	2.00	.000	0.00
3. Smithfield Plantation	12	.833	.297	-2.8*	12	1.66	.297	-2.8*

*Denotes significant difference in area scores between the assessor and the principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 3 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
Extra Curricular Activities								
1. After Hours Classes	15	2.00	.000	0.00	15	2.00	.000	0.00
2. Chess Club	15	.933	.000	0.00	15	.933	.000	0.00
3. Odyssey of the Mind	15	1.20	.000	0.00	15	1.20	.000	0.00
Classes								
1. Grade K	15	1.86	.133	-1.0	15	2.00	.133	-1.0
2. Grade 1	15	1.86	.133	-1.0	15	2.00	.133	-1.0
3. Grade 2	15	1.86	.133	-1.0	15	2.00	.133	-1.0
4. Grade 3	15	1.80	.144	-1.3	15	2.00	.144	-1.3

*Denotes significant difference in area scores between the assessor and the principal at the $p<.05$ level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 3 (con't)

Program Area	Assessor Count	M	SEM	t	Principal Count	M	SEM	t
5. Grade 4	15	1.73	.153	-1.7	15	2.00	.153	-1.7
6. Grade 5	15	2.00	.000	0.00	15	2.00	.000	0.00
7. Grade 6	15	1.80	.144	-1.3	15	2.00	.144	-1.3
8. PE	16	2.00	.000	0.00	16	2.00	.000	0.00
9. Band	16	1.87	.125	-1.0	16	2.00	.125	-1.0
10. Art	15	1.86	.133	-1.0	15	2.00	.133	-1.0

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 4

Comparison of Scores given by Assessor and Scores given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
School Areas								
1. School Bus	4	0.00		t cannot be calculated	4	0.00		t cannot be calculated
2. Playground	7	0.00		t cannot be calculated	7	0.00		t cannot be calculated
3. Cafeteria	9	0.88	.423	0.26	9	0.77	.423	0.26
4. Seating	4	2.00	.000	0.00	4	2.00	.000	0.00
5. Library	4	0.25	.500	-1.0	4	0.75	.500	-1.0

*Denotes significant differences in area scores between the assessor and principal at the $p<.05$ level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 4 (con't)

Program Area	Assessor Count	M	SEM	t	Principal Count	M	SEM	t
6. Parking	5	1.60	.200	1.00	5	1.40	.200	1.00
7. Routes	14	1.14	.245	-.29	14	1.21	.245	-.29
8. Water Closet	10	1.20	.359	0.59	10	1.00	.359	0.59
9. Telephone	5	2.00	.489	1.63	5	1.20	.489	1.63
10. Bathroom	7	0.57	.285	1.00	7	0.28	.285	1.00
11. Drinking Fountain	4	1.00	.500	1.00	4	0.50	.500	1.00
12. Stairs	2	1.00	.000	0.00	2	1.00	.000	0.00
Technology								
1. Overhead Projector	13	1.07	.268	1.72*	13	0.61	.268	1.72*
2. Television	13	1.38	.230	3.33*	13	0.61	.230	3.33*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 4 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
3. Telephone Sp. Ed.	13	1.38		t cannot be calculated	13	0.00		t cannot be calculated
4. Computer CD Rom	13	1.53	.264	3.48*	13	0.61	.264	3.48*
Extra Curricular Activities								
1. Brownies	16	0.93	.271	-.45	16	1.06	.271	-.45
Field Trips								
1. Airport	9	1.55	.000	0.00	9	1.55	.000	0.00
2. Fine Arts Center	8	1.50	.000	0.00	8	1.50	.000	0.00
3. VMI	12	0.66	.297	-.56	12	0.83	.297	-.56

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 4 (con't)

Program Area	Assessor Count	M	SEM	t	Principal Count	M	SEM	t
Classes								
1. Grade K	17	1.17	.211	2.78*	17	0.58	.211	2.78*
2. Grade 1	17	1.23	.212	2.49*	17	0.70	.212	2.49*
3. Grade 2	17	1.17	.270	3.92*	17	0.58	.270	3.92*
4. Grade 3	17	0.88	.128	1.37	17	0.70	.128	1.37
5. Grade 4	17	0.94	.142	2.06*	17	0.64	.142	2.06*
6. Grade 5	17	1.05	.151	3.10*	17	0.58	.151	3.10*
7. Grade 6	17	1.27	.161	2.06*	17	0.94	.161	2.06*
8. Library Arts	17	1.23	.106	2.21*	17	1.00	.106	2.21*
9. Art	18	1.22	.161	2.06*	17	0.88	.161	2.06*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 5

Comparison of Scores given by Assessor and Scores given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
School Areas								
1. School Bus	4	0.00		t cannot be calculated	4	0.25		t cannot be calculated
2. Playground	7	1.00	.359	1.98*	7	0.28	.359	1.98*
3. Cafeteria	9	1.33	.166	0.00	9	1.33	.166	0.00
4. Seating	4	2.00	.000	0.00	4	2.00	.000	0.00
5. Library	4	1.00	.250	1.00	4	0.75	.250	1.00
6. Parking	5	0.80	.316	0.00	5	0.80	.316	0.00

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 5 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
7. Routes	14	1.85	.142	-1.0	14	2.00	.142	-1.0
8. Water Closet	10	1.60	.000	0.00	10	1.60	.000	0.00
9. Telephone	5	1.60	.400	1.50	5	1.00	.400	1.50
10. Drinking Fountain	4	1.00	.500	-1.0	4	1.50	.500	-1.0
11. Stairs	2	0.00		t cannot be calculated				t cannot be calculated
12. Elevator	7	1.14	.436	0.00	7	1.14	.436	0.00
Technology								
1. Computer	13	1.69	.180	3.41*	13	1.07	.180	3.41*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 5 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
2. Library Television	13	1.69	.212	1.80*	13	1.30	.212	1.80*
3. Film Projector	13	1.53	.166	1.38	13	1.30	.166	1.38
4. Overhead Projector	13	1.46	.191	0.80	13	1.30	.191	0.80
Field Trips								
1. Greenhouse	9	0.66	.222	-1.0	9	0.88	.222	-1.0
2. Paramount Theater	8	2.00	.000	0.00	8	2.00	.000	0.00
Extra Curricular Activities								
1. Recreation Basketball	16	1.06	.331	-.56	16	1.25	.331	-.56

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 5 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
Classes								
1. Grade K	17	1.58	.192	-2.1*	17	2.00	.192	-2.1*
2. Grade 1	17	1.47	.212	-2.4*	17	2.00	.212	-2.4*
3. Grade 2	17	1.58	.192	-2.1*	17	2.00	.192	-2.1*
4. Grade 3	17	1.05	.234	-4.0*	17	2.00	.234	-4.0*
5. Grade 4	17	1.58	.192	-2.1*	17	2.00	.192	-2.1*
6. Grade 5	17	1.82	.128	-1.3	17	2.00	.128	-1.3
7. Grade 6	17	1.52	.212	-2.2*	17	2.00	.212	-2.2*
8. PE	18	1.22	.180	-1.8*	18	1.55	.180	1.8*

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 5 (con't)

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
9. Music	18	1.55	.201	-2.2*	18	2.00	.201	-2.2*
10. Library Arts	17	1.64	.117	-1.0	17	1.76	.117	-1.0

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 6

Comparison of Scores given by Assessor and Scores given by Principal on the Elementary School Accessibility Checklist

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
School Area								
1. School Bus	4	0.50	.408	-2.44*	4	1.50	.408	-2.44*
2. Playground	7	1.14	.142	1.00	7	1.00	.142	1.00
3. Cafeteria	9	1.33	.333	0.00	9	1.33	.333	0.00
4. Seating	4	2.00	.250	1.00	4	1.75	.250	1.00
5. Library	4	0.50	.500	-1.0	4	1.00	.500	-1.0
6. Parking	5	0.80	.000	0.00	5	0.80	.000	0.00

*Denotes significant differences in area scores between the assessor and principal at the $p<.05$ level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 6 (con't)

	Assessor				Principal			
Program Area	Count	M	SEM	t	Count	M	SEM	t
7. Routes	14	1.78	.154	-1.38	14	2.00	.154	-1.38
8. Watercloset	18	1.44	.205	-.27	18	1.50	.205	-.27
9. Telephone	5	1.60	.000	0.00	5	1.60	.000	0.00
10. Water Fountain	8	1.00	.250	-1.0	8	1.25	.250	-1.0
11. Stairs	4	0.00	.000	0.00	4	0.00	.000	0.00
Technology								
1. VCR	13	1.84	.104	-1.4	13	2.00	.104	-1.4
2. Computer Lab	13	1.84	.153	-1.0	13	2.00	.153	-1.0
Field Trips								
1. Progress Printing	12	1.33	.224	-1.4	12	1.66	.224	-1.4

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Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School summary 6 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
2. Sesame Street Live	8	1.00	.365	-2.0*	8	1.75	.365	-2.0*
3. Appomattox	12	1.33	.224	-1.4	12	1.66	.224	-1.4
Extra Curricular Activities								
1. Recreation League	17	1.70	.103	-.56	17	1.76	.103	-.56
2. Odyssey of the Mind	16	1.87	.000	0.00	16	1.87	.000	0.00
3. Girl Scouts	16	1.87	.000	0.00	16	1.87	.000	0.00
Classes								
1. Grade K	17	1.88	.117	-1.0	17	2.00	.117	-1.0
2. Grade 1	17	1.75	.161	-1.4	17	2.00	.161	-1.0

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Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

SEM = Standard Error of Measure

School Summary 6 (con't)

Program Area	Assessor Count	Assessor M	Assessor SEM	Assessor t	Principal Count	Principal M	Principal SEM	Principal t
3. Grade 2	17	1.88	.117	-1.0	17	2.00	.117	-1.0
4. Grade 3	17	1.88	.117	-1.0	17	2.00	.117	-1.0
5. Grade 4	17	1.88	.117	-1.0	17	2.00	.117	-1.0
6. Grade 5	17	1.52	.161	-1.4	17	1.76	.161	-1.4
7. Grade 6	17	1.88	.117	-1.0	17	2.00	.117	-1.0
8. PE	18	1.50	.111	-1.0	18	1.61	.111	-1.0
9. Library Arts	17	1.76	.117	-1.0	17	1.88	.117	-1.0

*Denotes significant differences in area scores between the assessor and principal at the p<.05 level
Mean Score is based on - 0= standard not met or not applicable
1= standard met with accommodations or adaptations
2= meets standard
Count= number of items listed on checklist in that program area

M = Mean

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VITA

DEANA R. PETERSON

1200 Toms Creek Road Apt. 102A
Blacksburg, VA 24060
(703)552-7632

PROFESSIONAL PROFILE

- 12 years experience in public school education
- 5 years experience with the Missouri Department of Mental Health
- Ed.D. Candidate, Virginia Polytechnic Institute and State University, Administration and Supervision of Special Education

PROFESSIONAL EXPERIENCE

Administration and Supervision

Building Administrator

- Cedar Ridge State School for the Severely Handicapped
- Coordinated move from rented property to new school building
- Reviewed applications, interviewed and hired professional and support staff
- Coordinated staff development activities
- Coordinated Parent/Teacher Organization activities
- Directed and reviewed work of contract professionals including physical and occupational therapists
- Conducted formative and summative evaluations of support and professional staff

Instructional

Teacher Assistant

- Teaching Assistant to Associate Professor Bonnie Billingsley in "Special Education Supervision"

- Prepared materials for and presented lectures to students working toward their doctorate in special education administration and supervision

Teacher of Students with Severe Disabilities

- Teacher of students with severe disabilities at Cedar Ridge State School - Nevada, Missouri
- Coordinated students' educational services, as well as physical, occupation and speech therapies
- Coordinated off-campus educational experiences and vocational training

Teacher - Department of Mental Health

- Teacher of young adults with severe developmental disabilities at the Nevada Habilitation Center - Nevada, Missouri
- Coordinated off-campus learning experiences
- Coordinated transitions from institutional to group home and private home living
- Served as a Qualified Mental Health Professional (QMRP) for the unit on weekends and evenings in cases of emergencies

Teacher of Educable Mentally Retarded

- Teacher of students with mental disabilities grades 1-8 at Billings Public Schools - Billings, Missouri
- Work with general education teachers to provide appropriate inclusion of students in their grade appropriate classrooms
- Coordinated the preparation and implementation of students Individual Education Plans

Fourth Grade Teacher

- Fourth grade teacher at Avilla Elementary School - Avilla, Missouri
- Took active part in Parent Teacher Organization

Other Education Experience

Consultant

- Assistive Technology Consultant - designing and implementing programs for use with "Powerpad" at Rocky Mount Elementary School - Rocky Mount, Virginia

Graduate Assistant

- Graduate Assistant in Department of Administration and Supervision of Special Education - Virginia Tech
- Student coordinator of a grant project from the Virginia Department of Education to produce a "Program Leadership in Special Education" manual
- Prepared the evaluation of the "16th Annual Institute on the Administration and Supervision of Special Education"
- Edited articles for submission to professional journals and other publications
- Conducted research for professors on various topics related to special education administration and supervision

RELATED EXPERIENCE AND HONORS

- President - Billings local chapter of the Missouri State Teachers Association
- Delegate - Missouri Teachers Association State Convention
- President - New River Valley Chapter of the Council for Exceptional Children
- Delegate - Virginia Council for Exceptional Children State Convention
- Delegate - International Council for Exceptional Children - San Antonio and Denver

PRESENTATIONS

- Presentations for teachers and staff of Cedar Ridge State School. Topics included:
    - Program adaptation
    - Physical therapy activities
    - Lifting techniques
    - Work preparation skills
    - IEP development
    - Objective writing and recording

- "Evaluation Design" - presented to graduate students in Supervision of Special Education - Virginia Tech - Spring 1994
- "Overview of the Education of Students with Severe Disabilities" - presented to undergraduates in Education of the Exceptional Child - Virginia Tech - Spring 1994
- "Development and Field Testing of the Elementary School Accessibility Checklist" - 10th Annual Graduate Research Symposium - Virginia Tech - April 22, 1994
- "Interviewing" - presented to graduate students in Administration of Special Education - Spring 1994

PUBLICATIONS

- Billingsley, B., Peterson, D., Bodkins, D. & Hendricks, M.B. (1993). Program leadership for serving students with disabilities. Richmond: Virginia Department of Education.

- Peterson, D. (1993). Program leadership for serving students with disabilities: Manual development. Blacksburg: Virginia Polytechnic Institute and State University.

- 16th Annual Institute on the Administration and Supervision of Special Education - Evaluation Report

- Various articles prepared for inclusion in the New River Valley CEC Chapter, and Virginia State CEC newsletters

- Peterson, D. (1993). Building Administrator's Evaluation. Blacksburg: Montgomery County Schools.

EDUCATION

Ed.D. Candidate, VPI & SU, Special Education Administration and Supervision 1994
Certificate of Advanced Graduate Studies (1993)
M.Ed., Drury College, Special Education (1977)
B.A., Drury College, Elementary Education (1974)

PROFESSIONAL DEVELOPMENT

- 1986-91 - yearly institutes presented by the Missouri State Schools for the Severely Handicapped - Jefferson City, Missouri
- 15th and 16th Annual Institute on the Administration and Supervision of Special Education
- National Association of State Directors of Special Education National Conference - Fall, 1991 - Cincinnati, Ohio
- 1977-93 - Council for Exceptional Children - state conventions in Missouri and Virginia
- 1993-94 - Council for Exceptional Children - international conventions in San Antonio, Texas and Denver, Colorado
- 1979-85 - Continuing education associated with the habilitation of adults with severe developmental disabilities
- 1986-89 - Additional coursework at Central Missouri State University - Courses included:

- Screening and Diagnosis of Learning Problems
- Foundations of Educational Administration
- School Law
- School Supervision

EMPLOYMENT HISTORY

Graduate Assistant, Virginia Tech	1991-94
Building Administrator - Cedar Ridge State School	1988-91
Teacher - Cedar Ridge State School	1985-89
Teacher - Nevada Habilitation Center	1979-85
Teacher - EMR - Billings, Missouri	1976-79
Teacher - 4th grade - Avilla, Missouri	1974-76

PROFESSIONAL ASSOCIATIONS

- Council for Exceptional Children

  a. President - 1992-93
     New River Valley CEC

  b. President Elect - 1991-92
     New River Valley CEC

  c. Delegate - National CEC Convention
     San Antonio, Texas - 1993
     Denver, Colorado - 1994

- Missouri State Teacher Association
  a. Local Council Treasurer - 1976-77
  b. Local Council President - 1977-78
  c. Local Council Delegate to the State Convention - 1977

- Association for Supervision and Curriculum Development

- Phi Delta Kappa

COMMUNITY SERVICES

• Member, Beta Sigma Phi	1974-present
• Board Member - United Community Fund (United Way)	1981-84
• Children's Choir Director	1985-91
• Montgomery County Christmas Store (Volunteer)	1991-94

REFERENCES

Dr. Philip R. Jones
Director - Special Education Supervision and Administration
202 E. Eggleston Hall
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Dr. Harold McGrady
Professor - Special Education Supervision and Administration
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Virginia Tech
Blacksburg, VA 24061-0302

(703)231-9715

Dr. Austin Tuning
Virginia State Director of Special Education
Virginia Department of Education
P.O. Box 2120
Richmond, VA 23216-2120

(804)225-2847

Ray Van Dyke
Principal - Gilbert Linkhous Elementary School
813 Toms Creek Rd.
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(703)552-2261

Darlene Baugher
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