

ACCESSIBLE SIGNAGE: A STUDY OF A MIDWEST COLLEGE CAMPUS

BY

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Abstract

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Accessible signage is critical to any facility's interaction with its patronages. Students from the campus were randomly asked to participate in a survey, which was developed particular for the investigation. The survey consisted of ten statements, which addressed the guidelines as set out by the ADA. Students were given the survey to see if a consensus could be found for universal signage on their campus. The data was collected and tabulated to determine the statistical value of the information. The current findings can be used to help other campuses determine what students' consider universal signage at their universities.

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CHAPTER 1

Introduction

It's your first day of college. You wake up at the crack of dawn for your 8 A.M. freshman English class. After searching the map of the campus you've finally found the building where the class is, but there's one problem...there's no way-finding signage to help you determine what floor your class is on or what wing it's in. As you look at the clock on the wall, you notice that its now 7:55 A.M. Panic and frustration come over you. Now imagine you are blind or perhaps quadriplegic. Things such as mobility and accessibility can become a challenge. As an 'able bodied' person, it is difficult to understand some of the challenges that persons with disabilities face, such as getting dressed for school, making yourself a lunch, or even getting to school. These challenges, compounded by being lost on any campus, can be trying, but when way-finding directories aren't available, being lost can become maddening.

Way-finding is the mental and physical ability to locate one's destination (Robertson & Dunne, 1998; Taylor & Taylor, 1993). In a recent article by Walker (1998), the U.S. General Services Administration found that the number

one complaint by persons with disabilities was that signage design was not informational or directional for those unfamiliar with the facility. The Americans with Disabilities Act accessibility guidelines for signage are few. They include specifics on height, width, letter size, contrast, and lighting. Although the Americans with Disabilities Act does have requirements for signage design, these requirements aren't enforced (Wehman, 1993) nor do they help a variety of persons with disabilities. Under the current regulations, informational or directional signage is most helpful for those with visual impairments or mobility impairments, which excludes those with cognitive disabilities (Liebrock & Behar, 1993).

With the lack of enforcement, many facilities forgo the development or design of way-finding signage. Unfortunately, there are no noted studies that examine the usage of directional or informational signage for college students with disabilities. Most studies on accessibility for students with disabilities refer to program accessibility and building accessibility issues (Senge & Dote-Kwan, 1995; Spiers, 1992; Sedita, 1980). However, research done on building accessibility looks only at the entrances into buildings, doorway sizes in buildings, restrooms, room signage, and classroom accessibility.

In addition to most facilities not having wayfinding signage, other factors can also attribute to one getting lost. One variable in particular is the floor plan configuration. In a study by O'Neill (1991), it was found that the more complex a floor plan configuration, the more chance of way finding errors. Another factor that can attribute to wayfinding error is gender. Lawton, Charleston, and Zieles found that there was a difference significant between the accuracy of men and women in locating a specific place in unfamiliar surroundings (1996). In addition, other factors such as type of disability can also contribute to the wayfinding process and errors (Robertson & Dunne, 1998; Taylor & Taylor, 1993).

Although there are many factors that can attribute to wayfinding errors and processing, there are many benefits to having wayfinding signage for buildings. One major benefit is that it can make the facility more accessible for those who are unfamiliar with the building (McGuinness & Kessler, 1997). With more accessibility, the University of Wisconsin Stout campus can be more open to the general public and community. In addition, it allows any individual to find his way independently through the facility (McGuinness & Kessler, 1997). Informational or directional

signage can be especially beneficial for those who are elderly, have limited vision, difficulty processing information, speech, hearing, or mobility impairments, and those who have limited literacy (McGuinness & Kessler, 1997).

Statement of the Problem

Informational signage is necessary to help students with disabilities and visitors who are unfamiliar with the campus. However, there is no universal design, which can be beneficial to a variety of persons with disabilities. In addition, there are no studies that ask students about their preferences for the design, appearance and contents of signage.

The purpose of this investigation is to document the preference of students with disabilities during the spring semester 2001 to create a universal design for informational signage on the University of Wisconsin at Stout campus. The Americans with Disabilities Act accessibility guidelines for signage will be utilized to help in the development of the design of the study. Data will be collected through the Americans with Disabilities Act accessibility guidelines checklist and a survey administered to students on campus.

Research Objectives

From this study, the researcher will accomplish the following objectives:

1) To assess current building directories on campus to determine whether they meet the Americans with Disabilities Act accessibility guidelines requirements.

2) To obtain student input on the design and content for these building directories.

Definition of terms

The following terms will be used throughout this study.

Americans with Disabilities Act of 1990 (ADA): "a civil rights law to prohibit discrimination solely on the basis of disability in employment, public services, and accommodations" (The Access Board, 2000, website).

ADA accessibility guidelines (ADAAG): "guidelines created by the Architectural Transportation Barriers Compliance Board to ensure that buildings, facilities, and vehicles covered by law are accessible to individuals with disabilities; issued on July 26, 1991 and then amended in September 6, 1991" (The Access Board, 2000, website).

Disability: a physical or mental impairment that substantially limits one or more of one's major life activities (The Access Board, 2000, website).

Section 504 of the Rehabilitation Act of 1973: “a civil law to prohibit discrimination on the basis of disability in programs and activities, public and private that receive federal financial assistance” (Special Education Programs, 1992)

Signage: signs (as of identification, warning, or direction) or a system of such signs.

Assumptions and Limitations

There are several assumptions that are apparent in this research. These are:

- 1) The buildings on the UW-Stout campus have no directories or do not meet ADA guidelines for buildings.
- 2) Students are willing to participate in this study.
- 3) Students will have a preference on what the design looks like and its contents.
- 4) A design can be created based on the preferences made by students with disabilities on the UW-Stout campus.

Meanwhile, there are also some limitations, which were identified by the researcher. These are:

- 1) This study is only reflective of one campus and can't be generalized to other colleges in the country.
- 2) The sample of subjects is small.

CHAPTER 2

Review of Literature

In this chapter a review of the literature was covered with regard to issues related to the study. The following is a brief outline of those issues. They are:

Historic overview

Types of Signage

The challenges of accessibility for those
with disabilities

Summary

Historic Overview

Historically persons with disabilities have faced many challenges. With a variety of disabilities, it is hard to address the history of all of them (Longmore, 1987). However, there was a central issue that they all have in common. The issue was that a disability is "an immutable condition caused by supernatural" entities (Longmore, 1987, p. 355). As the medical field developed more towards the modern era, this view changed to the notion that persons with disabilities were "flawed physically and morally" (Longmore, 1987, p. 359). When it was found that persons with disabilities couldn't be "fixed" then society began to hide them away in homes, insane asylums, and mental institutions. These social positions wouldn't be

altered until after World War I when Congress created "the first federal vocational rehabilitation legislation for disabled veterans and civilians" (Longmore, 1987, p. 360).

With legislation in place and an increase in those considered disabled, it wasn't long before a shift developed away from asylums and institutions. In 1918, federal funding was increased and vocational rehabilitation services responsibilities were broadened from state and federal employees and VA citizens to include those with disabilities from accidents or congenital defects (Longmore, 1987). With newfound freedom, persons with disabilities tried to integrate themselves into society, but found it difficult to obtain access to jobs and access to their community (Slonaker & Wendt, 1995; Bogdan & Biklen, 1993; Longmore, 1987). As the problem progressed so too did the awareness of the issue, a commission by the Congress was then created to investigate the issue, which became known as the National Commission on Architectural Barrier Rehabilitation of the Handicapped (Access Board, 2000). The main goals of the Commission were "to determine the extent to which architectural barriers prevented access to public facilities, report on what was being done to eliminate barriers which prevented access to public facilities, report on what was being done to eliminate

barriers, and propose measures to eliminate and prevent barrier," (Access Board, 2000, ¶ 1). Information from the report was then employed and Congress created the Architectural Barrier Act of 1968 [ABA] (Access Board, 2000). The ABA of 1968 aimed to provide access to persons with disabilities to facilities designed, built, altered, or leased with Federal funds (Access Board, 2000). Unfortunately as many years passed the issue of access remained an issue to persons with disabilities at many public, state, and local facilities.

Then in 1973, the Rehabilitation Act was created to combat the issue of not only accessibility, but also the issue of discrimination in the workplace. One title of the act in particular was that of Title V, which directly addressed the issue of accessibility (Special Education Program, 1992). In addition, the act created the Architectural and Transportation Barriers Compliance Board, which later was renamed as the Access Board. The purpose of the board was to enforce "Federal agencies to comply with the ABA of 1968 and to propose solutions to environmental barriers problems addressed in the ABA," (Access Board, 2000, ¶ 1). Furthermore, the board was also directed "to eliminate barriers from public transportation," (Dubow, 1992, p. 47). Over the years, the Access Board worked hard

to develop awareness for accessibility to federal agencies about the importance of making their facilities accessible for persons with disabilities (Access Board, 2000, ¶1). In 1977, the Board presented its first citation of noncompliance (Access Board, 2000, ¶1).

Although when the Rehabilitation Act of 1973 was released few barriers were overcome, other challenges for persons with disabilities still remained, such as discrimination in accessibility in the workplace, community, education, and housing. To dissolve these issues, the Americans with Disabilities Act (ADA) was created in 1990. "The ADA guarantees the rights of full inclusion into the mainstream of American life" (Wehman, 1993). In addition, it banned discrimination against persons with disabilities in each of these areas (Barr, 2000; Donald Coolidge, 1995). With the ADA, persons with disabilities now had access to equal education (Senge & Dote-Kwan, 1995; Spiers, 1992; Kaufman, 1991; Sedita, 1980), employment (Slonaker & Wendt, 1995) and the community at large.

To address the issues of accessibility, the ADA developed standards for federal buildings and public businesses when making facilities more accessible (Wehman, 1993). These standards were known as the Americans with

Disabilities Act Accessibility Guidelines. The purpose of these guidelines was to provide:

scoping and technical requirements for accessibility to buildings and facilities by individuals with disabilities under the Americans with Disabilities Act (ADA) of 1990. These scoping and technical requirements are to be applied during the design, construction, and alteration of buildings and facilities covered by titles II and III of the ADA to the extent required by regulations issued by Federal agencies, including the Department of Justice and the Department of Transportation, under the ADA (Access Board, 2000).

These guidelines include standards for miscellaneous spaces, restaurants and cafeterias, medical care facilities, business (both mercantile and civic), libraries, lodging, and transportation facilities. Signage was among these and categorized under miscellaneous spaces.

Types of Signage

Signage "in public space is needed to control movement and to offer advice information, and identification" (Liebrock & Behar, 1993, p. 110). Signs should be simplistic so that everyone can understand them. Liebrock and Behar (1993) summed it up best that signs should be

"consistent" within the environment, "readable for all users, and stated in positive terms" (p. 110). In addition, Liebrock and Behar (1993) pointed out that the essential elements of a sign were its "contrast, proportion, and redundant cuing" (p. 110).

There are a variety of uses for signs. The primary purpose for signs is to provide someone with information. They can be found also in a variety of areas such as universities, schools, subways, bus depots, airports, theaters, restaurants, and, libraries. In addition, there are a variety of signs. The ADAAG established that there are two categories that signage can fall into (McGunniness & Kessler, 1997). The first category is signs "that identify permanent rooms or spaces" (McGunniness & Kessler, 1997, p. 40). The second category is signs, which "provide information about, directions to, or functional spaces in a building" (McGunniness & Kessler, 1997, p. 40).

Along with various categories for signage there are also various technologies and products. Some of these products include the Raynes Rail, coordinated way-finding systems, and audible signs (McGunniness & Kessler, 1997; Bentzen & Mitchell, 1995). The Raynes Rail is "a hand-rail system that provides Braille messages on its inner face and is also capable of offering audio instructions" (McGunniness

& Kessler, 1997, p. 41). Coordinated way-finding systems are those that include maps, unique signs, textured floors, or pictograms (McGunnies & Kessler, 1997). On the other hand, audible signs are signs that can transmit information through receivers to individuals at a designated area (McGunnies & Kessler, 1997; Bentzen & Mitchell, 1995). All of these systems aid in providing accessibility to facilities for persons with disabilities.

The Challenges of Accessibility For Those With Disabilities

Accessibility in society for persons with disabilities is an everyday trial. However, besides just the accessibility to facilities in society, persons with disabilities must also deal with accessibility issues in education (Senge & Dote-Kwan, 1995; Spiers, 1992; Kaufman, 1991; Florida State Postsecondary Planning Education Commission, 1991; Sedita, 1980) and employment (Slonaker & Wendt, 1995). Some issues found for individuals with disabilities with regard to education include accessibility of programs and services (Spiers, 1992; Kaufman, 1991; Sedita, 1980)

In a recent study done by West et. al (1993), it was found that more than 50% of the participants were reasonably or very satisfied with the accommodations and services as provided by their university. However, they

also found that 86% of the participants reported having faced some barriers to their education because of their disability (West, et. al, 1993). Some of the barriers mentioned by the participants were those of buildings without elevators, inaccessibility to science and/or computer labs, great distance between "handicapped entrances," informational inaccessibility (no large-print text books), etc. In addition to structural barriers, the participants also noted that there were barriers in terms of "lack of understanding and cooperation from class instructors, professors, and other school personnel regarding accommodations and modifications" (West, et. al., 1993, p. 462).

Other accessibility issues for individuals with disabilities include employment discrimination. In 1998, it was found that 67.9% of persons with disabilities were unemployed (Kaye, 1997). In an article by Slonaker and Wendt (1995), it was found that from the files of the Ohio Civil Rights Commission that 95% of the claims made to the organization were for employer discrimination. In a Harris poll, it was found that 40% of the participants stated that the main problem to employment was the employer's attitudes (Kaye, 1997). However, other problems that were mentioned were physical and architectural barriers in the work place.

Summary

In times gone by, it has been found that persons with disabilities face many struggles. However, with the passage of legislation, some of those struggles have been eliminated. Nevertheless, some struggles remain such as accessibility and mobility issues. Through way-finding signage, persons with disabilities are able to integrate into the community independently and freely without limitations such as not knowing where to go on campus.

CHAPTER 3

Methodology

Introduction

In this chapter a brief description of the subjects and how they were selected for inclusion in this study will be discussed. In addition, the instruments that were used will be discussed as to their content, validity, and reliability. Furthermore, data collection and analysis will also be presented. The chapter will conclude with some of the practical limitations.

Description and Selection of Participants

The participants for this study were all enrolled at the University of Wisconsin at Stout during the spring semester, 2002. Participants were from a variety of disciplines. Participants were selected from classes of professors who agreed to have the researcher administer the survey to their classes. Other participants were randomly chosen from the Office of Disability Services on the campus. Participants were given a brief overview of the study and told what their involvement would entail. A total of 94 male and female students ranging from 18 to 54 participated in the survey.

Instrumentation

In this study there were two instruments used to collect the data. The first instrument used was the ADA Checklist for Readily Achievable Barrier Removal. The purpose of the checklist is to "help one identify accessibility problems and solutions in existing facilities in order to meet [your] obligations under the ADA," (Adaptive Environments Inc, 1995, p. 2). The checklist is based on four priorities recommended by Title 3 of the ADA. The priorities are " priority 1: accessible entrance into the facility, priority 2: access to goods and services, priority 3: access to restrooms, and priority 4: any other measures necessary," (Adaptive Environments Inc., 1995, p. 3). The checklist was used to collect the preliminary data to assist in the development of the second instrument. A copy of the preliminary instrument can be found in Appendix A. The second instrument was a survey developed by the researcher to obtain data on student preferences and understanding of signage. A copy of this instrument can be found in Appendix B. The first few questions on the survey were demographic, which included gender, age, class status, and known disability if applicable. The next two statements on the survey were created to establish if students were satisfied with current signage on campus. The remaining

statements address students' knowledge and acceptance of accessible signage as defined by the ADAAG used from the checklist. There were no reliability and validity measures done on this particular instrument, because this instrument was designed and created specifically for this study. However, descriptive statistics were developed, which include the mean response and standard deviation.

Data Collection

The researcher collected the data for this study. In doing so each building on the University of Wisconsin Stout campus was toured to collect the initial data using the ADAAG checklist. Once the initial data was collected, a survey was developed and administered to three classes. Other surveys were left in the office of disability services for a week, where students were asked to volunteer in the study. The researcher collected the surveys with assistance from her advisor. The researcher then tabulated the resulting data.

Data Analysis

The data collected from the preliminary checklist were tabulated and analyzed to aid in the development of the student survey. The data collected from the surveys were tabulated, analyzed, and charted to determine student preferences and knowledge of accessible signage. The survey

was tabulated by using a Likert scale of response from 1 meaning strongly disagree to 5 meaning strongly agree.

Limitations

The study may contain the following limitations:

- 1) This study is only reflective of one campus and should not be generalized to other colleges in the country.
- 2) The sample of subjects is small.
- 3) The survey was developed by the ADAAG, but the researcher, who has not been trained on ADA accessibility, made interpretation of it.
- 4) The survey was not developed and normed for reliability and validity.

CHAPTER 4

Results

This chapter will present the results of the initial data collected by the researcher and the results of the survey. The demographic information and descriptive statistics will be reported first. Then data collected on each of the research objectives will be given.

Demographic Information

In the initial data collection, 32 buildings on campus were surveyed. Each building averaged 2 entrances. Of the buildings surveyed, 17 of those buildings meet the ADAAG with a range from 1 percent to 16 percent of their entrances met ADAAG. As presented in Figure 3, these buildings were the Vocational rehabilitation building, Millennium Hall, Home Economics building, Communication Technology building, Frylunk Hall, Harvey Hall, Bowman Hall, McCalmont Education building, Jarvis Hall, Applied Arts building, and Merle M. Price Commons. Buildings that were not presented in Figure 1 that did not meet ADAAG were Antrium Foggart Hall, North Hall, Hansen-Keith-Milnes-Chinnock Hall, South Hall, Curran-Kranzusch-Tustison-Oetting Hall, Student Health, Wigen Hall, Holivd Hall, Jeter-Tainter-Callahan Hall, Fleming Hall, Louis Tainter House, and Johnson Fieldhouse.

The sample for the survey consisted of 6 percent (6) freshmen, 12 percent (11) sophomores, 17 percent (16) juniors, 20 percent (19) seniors, and 38 percent (36) graduate students. There were 6 percent (6) of the participants who did not response to this statement. The sample was made of 72 percent (68) of females and 24 percent (23) of males. Three percent (3) of the participants did not indicate their gender. Nine percent (8) of the participants indicated that they had a disability, while 87 percent (82) indicated that they did not have a disability. Four percent (4) of the participants did not response to this question. (Refer to Figure 2)

Results Summary

The initial data collected found that on average 13 percent of the academic or administrative buildings met the ADAAG checklist. However, none of the residential halls met any of the requirements on the ADAAG checklist. In Figure 3, it shows that the Millennium Hall averaged the most requirements per entrance on the ADAAG checklist and how the other buildings measured up. The responses from the surveys on statements one and two had an average score of 3.5, which is the range on the Likert scale between Undecided to Agree. In figure 4, the percentages per statement are displayed. On the statements of preferences

35% (33) of students disagreed that current directories and signs on campus were accessible to everyone. Meanwhile, students had an average score of 4.1 on ADA accessibility guideline statements, which range on the Likert scale between Agree to Strongly Agree and were from statements three through ten.

Figure 1-Raw Data of Preliminary Survey
Number of Entrances That Met Checklist
Items

<u>Buildings (Total of Entrances)</u>	1	2	3	4	5	6	7	8
Vocational (5)	0	1	1	1	0	0	0	1
General Services (1)	1	1	1	1	0	0	0	0
University Services (2)	2	2	2	3	0	0	0	2
Library Learning Center (2)	1	1	2	1	0	0	0	1
Child and Family Study Center (1)	0	0	0	0	0	0	0	0
Home Economics (4)	3	3	3	0	0	0	0	3
Heating Plant (1)	0	0	1	0	0	0	0	1
Millennium Hall (2)	1	0	0	0	0	0	0	0
Communication Technology (3)	3	3	3	1	0	0	0	3
Frylunk Hall (2)	2	2	2	2	0	0	0	2
Administration Bldg. (2)	0	2	1	1	0	0	0	0
Harvey Hall (4)	0	2	1	0	0	0	0	0
Bowman Hall (2)	0	1	1	0	0	0	0	0
Memorial Student Center (6)	0	6	6	0	0	0	0	0
McCalmont Education Bldg. (1)	0	0	1	0	0	0	0	0
Javis Hall (7)	0	6	6	6	0	0	0	0
Micheels Hall (4)	0	0	0	0	0	0	0	0
Antrium Foggart Hall (2)	0	0	0	1	0	0	0	0
North Hall (2)	0	0	0	0	0	0	0	0
Hansen-Keith-Mines-Chinnock Halls (3)	0	0	0	0	0	0	0	0
South Hall (3)	0	0	0	0	0	0	0	0
Curran-Kranzusch-Tustison-Oetting Halls (3)	0	0	0	0	0	0	0	0
Student Health (2)	0	0	0	0	0	0	0	0
Wigen Hall (3)	0	0	0	0	0	0	0	0
Johnson Fieldhouse (2)*	0	0	0	1	0	0	0	0
MerleM. Price Commons (4)	0	1	1	1	0	0	1	0
Applied Arts Bldg. (3)	0	3	3	1	0	0	0	0

**This building had one directory between the two entrances.*

*** For items 1-8, please refer to Appendix C.*

Figure 2
Demographic Information for Student Survey

<u>Average Age</u>		
	26	
<u>Gender Breakdown</u>		
Male	23	24%
Female	68	72%
No Response	3	3%
<u>Disability Count</u>		
Disabled	8	9%
Non-Disabled	82	87%
No Response	4	4%
<u>Grade Level Count</u>		
Freshman	6	6%
Sophomore	11	12%
Junior	16	17%
Senior	14	15%
2nd Yr. Senior	5	5%
Graduate	36	38%
No Response	6	6%

Figure 3
Building Entrances Meeting ADAAG

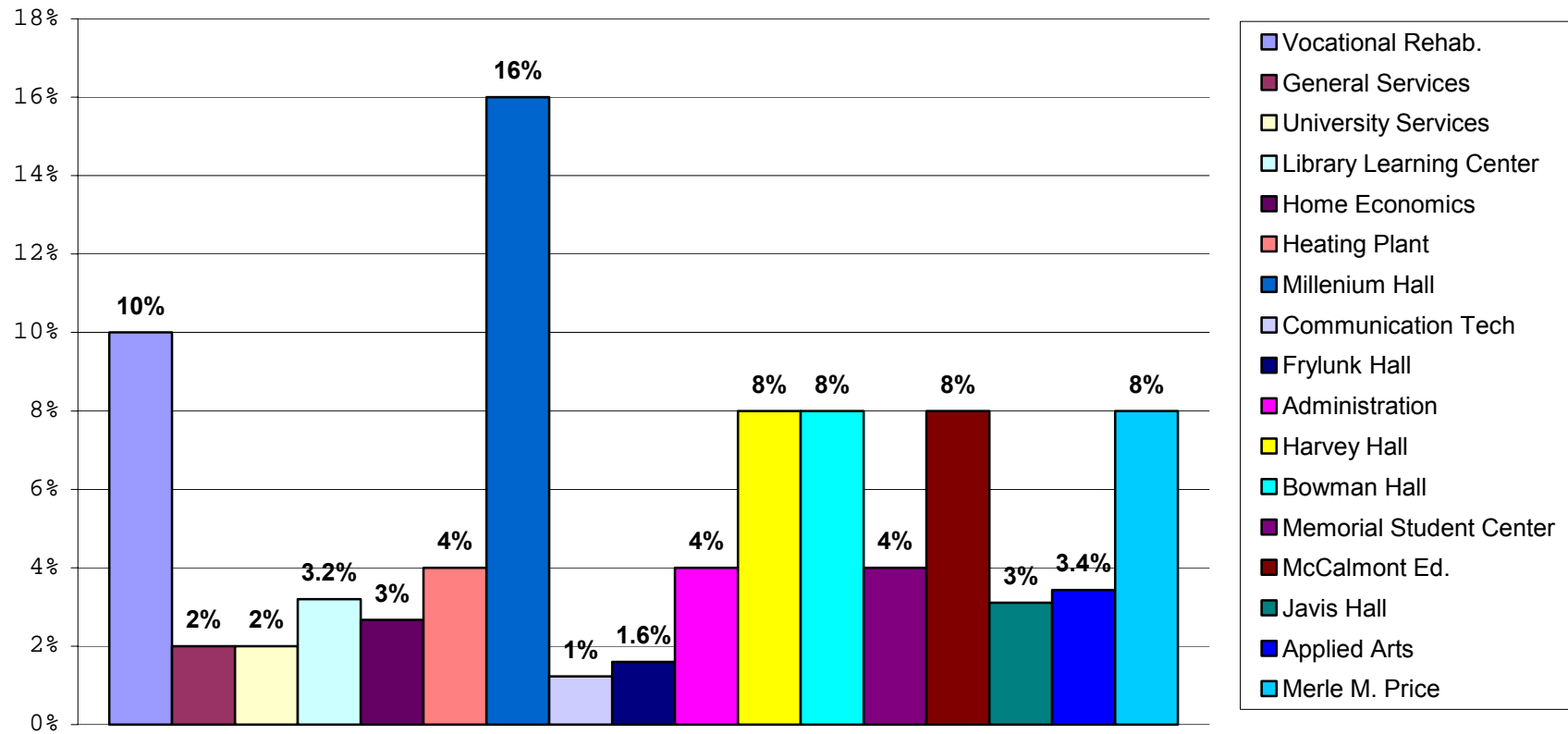
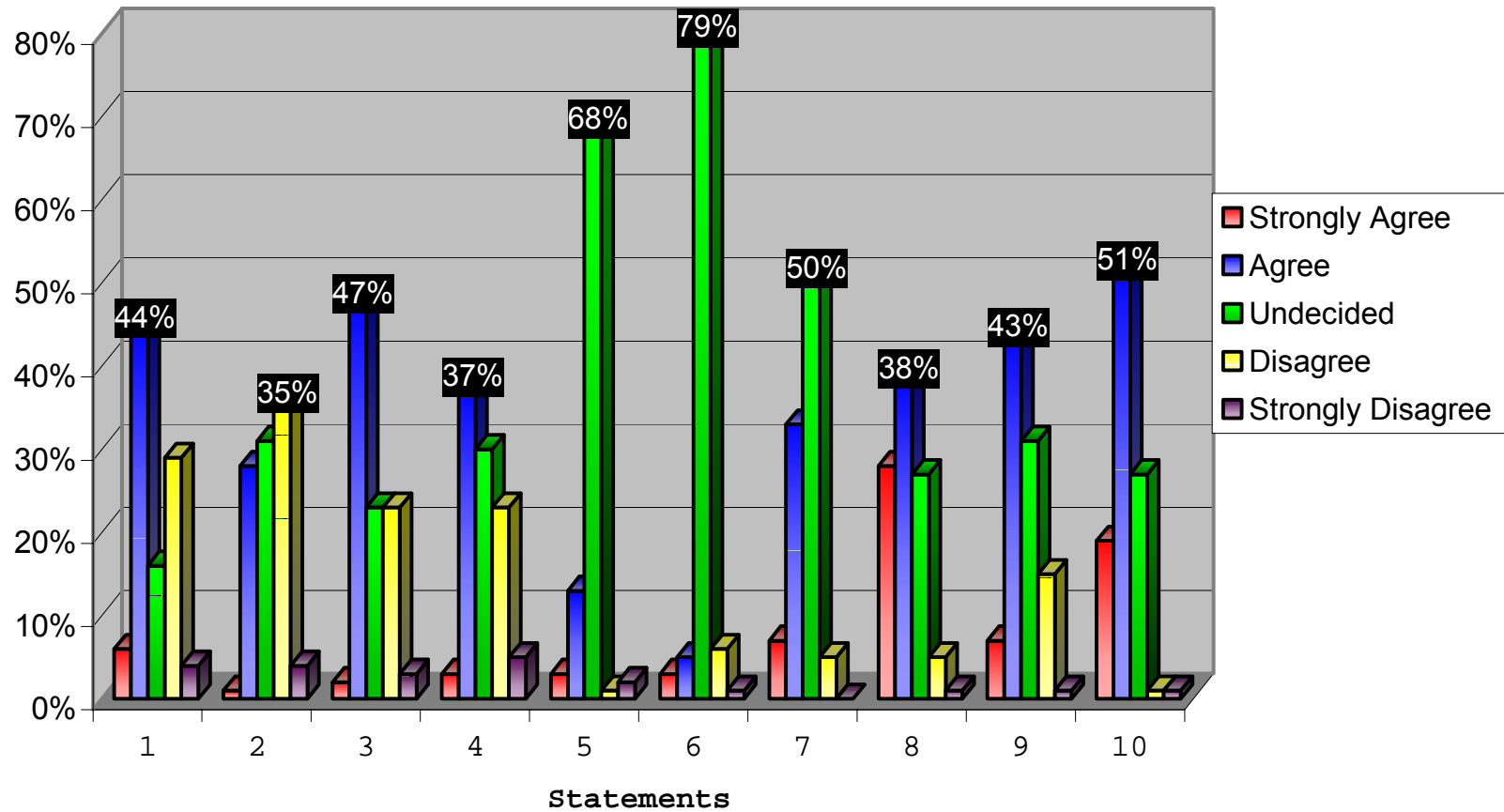
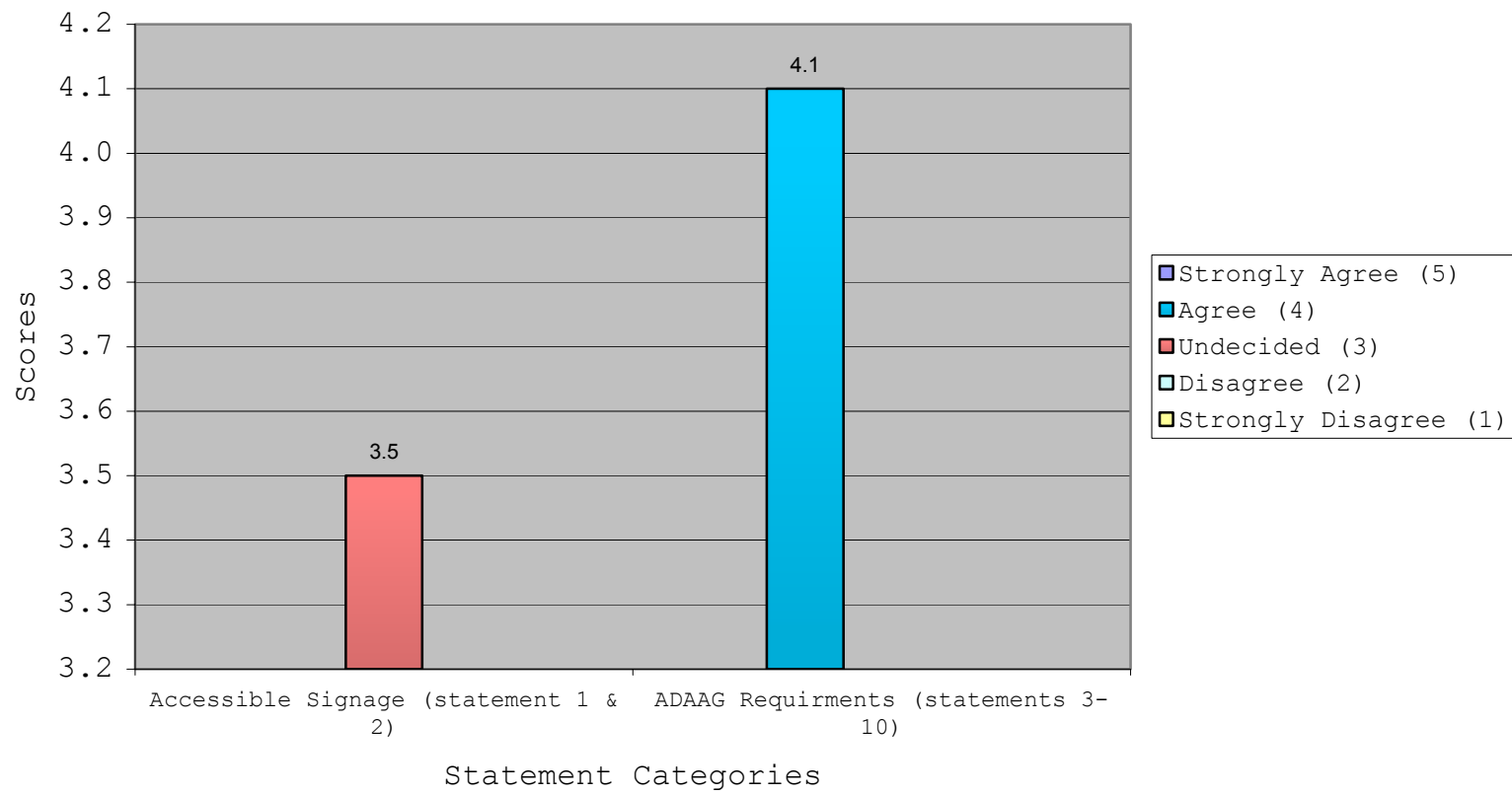


Figure 2
Summary Survey Results



**Statements numbers correspond to statement numbers on the survey in Appendix A.*

Figure 5- Average Student Suvery Scores



CHAPTER 5

Discussion

In this chapter, the research results will be summarized and recommendations for future study will be presented.

Summary of Findings

The current study examined accessible signage on the University of Wisconsin-Stout campus. To obtain this information a preliminary survey of campus buildings was done, which assisted in the development of a student survey. Results from preliminary data were found that a majority of the buildings on campus on average did meet some ADAAG. From the student survey, it was established that students were on average ultimately undecided about how they felt with regard to accessibility on campus. However, under statements about ADAAG, they ranged between agree to strongly agree in favor of the guidelines.

Conclusions

Although the sample size was small and mostly made up of graduate students, the results show that not all buildings on the campus provide accessible signage and that student responses confirm that campus signage is inaccessible. From this study it is confirmed that

inaccessibility is an issue for college students (Senge & Dote-Kwan, 1995; Spiers, 1992; Kaufman, 1991; Florida State Postsecondary Planning Education Commission, 1991; Sedita, 1980). However, unlike current research, students do favor ADAAG for accessible signage. Although there were no clear definitions of how students felt about design of universal signage on campus, it is apparent that they are content with the minimal requirements as stated by the ADAAG.

Recommendations

Several suggestions are offered for further research the need for accessible signage on at a university. These are:

1. Students' participation should be increased to gain a better understanding of their needs for campus signage.
2. This researcher recommends that this study be replicated with a larger more diverse sample of students.
3. Someone with more experience with federal standards and legislation should also conduct it.
4. The survey should also be given at several campuses.
5. Reliability and validity testing should be done on the student survey as well.

6. In addition, the student survey should be reformatted to make students decide on how they feel about the statements.

Accessible signage on university campuses is imperative to not only students of all ages, but also for the community as well. Legislation demands that accessibility not be an issue for persons with disabilities. By providing accessible signage, facilities open their doors to more prospective consumers and visitors.

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Appendix A

Student Survey

Survey

Age _____

Gender: M F

Disability: Y N

Circle One: Freshman Sophomore Junior Senior 2nd Yr-Senior Graduate

On a scale of one to five please rate the following:

1. With current campus signs and directories, I can find any room on campus.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

2. Campus signs and directories are easy for anyone to access.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

3. Campus signs and directories include locations of bathrooms, elevators, permanent rooms, and offices.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

4. Characters and numbers on signs are sized according to the viewing distance from which they are to be read

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

5. Characters and number heights are measured by using a upper case X

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

6. Letters and numbers on signs have a width to height ratio of 3:5 and a stroke width and height ratio of 1:5.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

7. Letters and numbers are to use Sans Serif font and accompanied with Grade 2 Braille.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

8. Signs and directories must be accompanied with pictograms and Braille.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

9. Characters and background of signs have a non-glare finish.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

10. Signs and directories should be located on a wall adjacent to the latch side of the door.

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

APPENDIX B
Raw Scores for Student Survey

Survey

Gender: M F Disability: Y N

Circle One:

On a scale of one to five please rate the following:

1. With current campus signs and directories, I can find any room on campus.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
4	27	15	41	6

2. Campus signs and directories are easy for anyone to access.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
4	33	29	26	1

3. Campus signs and directories include locations of bathrooms, elevators, permanent rooms, and offices.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
3	22	22	44	2

4. Characters and numbers on signs are sized according to the viewing distance from which they are to be read.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
5	22	28	35	3

5. Characters and number heights are measured by using a upper case X.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
2	9	64	12	3

6. Letters and numbers on signs have a width to height ratio of 3:5 and a stroke width and height ratio of 1:5.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	6	74	5	3

7. Letters and numbers are to use Sans Serif font and accompanied with Grade 2 Braille.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
0	5	47	31	7

8. Signs and directories must be accompanied with pictograms and Braille.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	5	25	36	26

9. Characters and background of signs have a non-glare finish.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	14	29	40	7

10. Signs and directories should be located on a wall adjacent to the latch side of the door.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	1	25	48	18

APPENDIX C
Items from ADAAG checklist

Signage for Goods and Services (ADAAG 4.30)
Different requirements apply to different types of signs.

NOTE

If provided, do signs and room numbers designating permanent rooms and spaces where goods and services are provided comply with the appropriate requirements for such signage?

☐ ☐

- Signs mounted with centerline 60 inches from floor.

Y N ☐ ☐

height

- Mounted on wall adjacent to latch side of door, or as close as possible.

☐ ☐

- Raised characters, sized between 5/8 and 2 inches high, with high contrast (for room numbers, rest rooms, exits).

☐ ☐

character height

- Brailled text of the same information.

☐ ☐

- If pictogram is used, it must be accompanied by raised characters and braille.

☐ ☐

- ☐ Provide signs that have raised letters, Grade II Braille, and that meet all other requirements for permanent room or space signage. (See ADAAG 4.1.3(16) and 4.30.)

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9

QUESTIONS

POSSIBLE SOLUTIONS

Directional and Informational Signage

The following questions apply to directional and informational signs that fall under Priority 2.

Yes No

- If mounted above 80 inches, do they have letters at least 3 inches high, with high contrast, and non-glare finish?

☐ ☐

letter height

Do directional and informational signs comply with legibility requirements? (Building directories or temporary signs need not comply.)

☐ ☐

- ☐ Review requirements and replace signs as needed, meeting the requirements for character size, contrast, and finish.

- ☐ Review requirements and replace signs as needed.