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Effect of Accessibility Information on Restaurant Selection of Consumers with Disabilities

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EFFECT OF ACCESSIBILITY INFORMATION ON RESTAURANT
SELECTION OF CONSUMERS WITH DISABILITIES

by

Rachael Baumann

A Thesis Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Master of Science
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December 2014

ABSTRACT

EFFECT OF ACCESSIBILITY INFORMATION ON RESTAURANT SELECTION OF CONSUMERS WITH DISABILITIES

by

Rachael Baumann

The University of Wisconsin-Milwaukee, 2014
Under the Supervision of Professor Roger O. Smith

OBJECTIVE: The study addressed the research question, "How does accessibility information about restaurants affect the diversity of restaurant choices for people with disabilities compared to others who only have general review information about restaurants?" The literature describes that people with disabilities experience limited participation in community activities. One community activity is dining out at restaurants. It is hypothesized that the availability of accessibility information will diversify restaurant choices, as it would minimize the risk of encountering unforeseen barriers that enable them to prepare for ones that they anticipate.

METHOD: Participants (N-14), half with disabilities and half without disabilities, selected dining experiences at 5 restaurants. They chose restaurants from a unique list of 10 restaurants composed of 5 restaurants they had visited and 5 restaurants they had not. Participants were assigned to either a group that received restaurant accessibility information through the Access Ratings for Buildings (AR-B) website (intervention) or a group that received general review information about the restaurants through Yelp.com (control). They were asked

to review their respective website information as they chose 5 restaurants for dining. The number of restaurants that participants chose were compared among the 4 groups to address 3 hypotheses. Questionnaires completed by the participants provided qualitative data and informed the researchers about the participants' decision making process as they were selecting restaurants.

RESULTS: One of the 3 apriori hypotheses was statistically supported. On the other hand, qualitative data consistently supported the theoretical underpinnings of the study. Hypothesis 1 posed that people with a disability using the AR-B website would select more new restaurants than participants with a disability that used Yelp. The results did not reveal a significant difference. Hypothesis 2 posed that participants without a disability who used AR-B would chose a similar number of new restaurants as those without a disability who used AR-B. This was supported. Hypothesis 3 stated that participants with a disability who used Yelp would select fewer new restaurants than participants without a disability who used Yelp. This was not statistically supported. To the contrary, the overall visual analysis of the data showed consistent trends supporting the underlying theoretical constructs that AR-B information affected the restaurant choice. Additionally, qualitative analysis of questionnaire data showed that accessibility is a highly valued feature for restaurants and that the accessibility information provided through the AR-B app was beneficial to people both with and without a disability.

CONCLUSION: While this small study did not find statistical significance on the effects of using the AR-B website information during dining selection, it

corroborated that restaurant accessibility is a commonly valued feature for restaurant patrons and that people with disabilities find benefit from accessibility information about public buildings. People also seem to select more new restaurants when they read web-based restaurant reviews of any type during their decision-making.

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I. INTRODUCTION AND LITERATURE REVIEW

The Introduction and Literature Review section of this proposal is divided into two main sections. The first section discusses general issues regarding building accessibility. It elaborates on concepts around community participation that includes challenges for people with disabilities, impact on health and well-being, definition and theoretical basis, and factors that affect participation for this population. The second section describes several interventions intended to increase participation, with a focus on the Access Ratings for Buildings (AR-B) project. This section ends by discussing how different people make restaurant choices, and leads into the specific aims of the proposed study.

The Inaccessibility of Public Buildings

Inaccessible environments pose significant barriers to participation for people with disabilities. Title III of the Americans with Disabilities Act (ADA) (1990) was designed to ensure full and equal enjoyment of public facilities by mandating that buildings contain such features as ramps, elevators, and low countertops. However, many public buildings remain inaccessible due to persisting shortcomings in the ADA. First, the ADA Accessibility Guidelines (ADAAG), which provide a framework for enforcing ADA standards, have limited impact because they are vague, subject to varying interpretations, and are frequently in conflict with other laws (Andrews, 1997). Additionally, many buildings are not required to meet ADA standards due to exceptions in the law (Hymas and Parkinson, 2013). Although buildings constructed after 1993 or

modifications made after 1992 must meet ADA standards, older buildings are not required to do so. Since older buildings constitute the majority of buildings in the United States, ADA standards affect only a small portion of public buildings. In addition, ADA standards reflect only a minimal level of accessibility. A number of factors that affect accessibility are not addressed by the ADA, such as level of crowding, availability of Braille printed materials, attitudes and knowledge of service personnel, noise level, and sense of safety (Baker, Holland & Kaufman-Scarborough, 2007; Poria & Reichel, 2011; Song Ee & Xinran Y, 2012). Inaccessible environments impact both the ability and desire of people with disabilities to visit public places, limiting their participation in the community.

Community Participation Restrictions for People with Disabilities

Building access is a key aspect of a broader issue that affects people with disabilities; their limited participation in the community. Disability has been found to lead to participation that is less frequent and diverse, takes place more in the home, involves fewer social relationships, and is more sedentary (Law, 2002; Mâsse et al., 2012; Carey, 2012). Children with disabilities often experience social isolation and bullying at school, which is their primary link to the community (Carey, 2012). Law describes research showing that adults and older adults with disabilities experience social isolation and engage in more passive activities. Statistics on disability from Harris Interactive Inc. reveal that people with disabilities eat at restaurants half as frequently (33%) as the average population (60%). This highlights restaurant dining as a major area of disparity

for people with disabilities. Equality and community participation are important goals that have not yet been achieved.

The Impact of Participation on Health and Well-Being

Level of participation in the community is often considered the ultimate rehabilitation outcome (Heinemann et al. 2013). As an expert in the community participation, Law (2002) describes the influence that participation has on health, well-being, life satisfaction and sense of competence. It is essential for psychological, emotional, and skill development. In children, participation in extracurricular activities reduces behavioral and emotional difficulties. In youths, it leads to fewer school dropouts and more effective social relationships. Decreased participation for youths has been associated with lower self-esteem, difficulty making friends, smoking, and poor reading and math performance (Law et al., 2002). For adults, recreation and leisure participation are related to quality of life and well-being. Participation by older adults is associated with mental and physical health, life satisfaction, and a longer life. Participation restrictions caused by disability limit the experience of these essential components of health and well-being.

Approaches to Defining Participation

To address issues of participation inequality, ongoing efforts seek to define the concept. Components that have also been identified show that while some aspects are objective and quantifiable, key subjective features are more difficult to measure. Carey (2002) discusses participation as defined by the International Classification of Functioning (ICF), noting that the following

categories are thought to encompass aspects of participation: Self-Care, Domestic Life, Interpersonal Interactions and Relationships, Major Life Areas, Community, and Social and Civic Life. These categories are considered participation-based because they are more complex, involve other people, are a part of routines or roles, and are more likely to be affected by participation restrictions. Heinemann et al. (2013) points out that the ICF fails to consider essential aspects of participation that are subjective, such as meaning. Some recent models include factors such as choice and control, importance, belonging, and satisfaction. Dimensions are thought by some to include the person's preferences and interests; what he or she does, where, and with whom; and how much enjoyment and satisfaction he or she finds (Law, 2002). Assessments to measure participation range from formal instruments to time-use surveys (Carey, 2012; Law, 2002). The challenge of defining participation has led to the construction of an extensive theoretical framework from various avenues of thought.

Theoretical Framework for Participation and Disability

Understanding participation in the community has a strong theoretical basis. The Ecology of Human Performance (EHP), the Person-Environment-Occupation (PEO) Model, and the International Classification of Functioning (ICF) are highlighted due to their emphasis on context as an essential component in the manifestation of disability. The EHP and PEO models emerged in the occupational therapy literature in the 1990s. The ICF was introduced on an international platform in 2001 with its predecessor, the ICIDH (International

Classification of Impairment, Disability, and Handicap) a decade earlier. They represent a shift in health science and practice away from the medical model towards a social view of disability.

Ecology of Human Performance (EHP)

The Ecology of Human Performance was introduced by Winnie Dunn in 1994 (Dunn, Brown & McGuigan, 1994). Drawing from the social sciences, Dunn presented a model for occupational therapy that included contextual features in the understanding of disability. In the EHP framework, ecology refers to the interaction between the person and the environment. The framework maintains that this interaction affects human behavior and performance, and that performance cannot be understood outside of context. The person includes "one's experiences and sensorimotor, cognitive, and psychosocial skills and abilities" (Dunn et al., 1994). Tasks are defined as "objective sets of behaviors necessary to accomplish a goal" (Dunn et al., 1994). Individuals use environmental cues and features to support their performance of a task. In this way, context interacts with a person's skills and abilities, resulting in a scope of action called the "performance range" (Dunn et al., 1994). As context shifts, the behaviors needed to achieve a goal change as well. Persons view potential tasks through "their contextual filter, the accumulation of their experiences, and their perceptions about the physical, social, and cultural features" of their context (Dunn et al., 1994). A person's performance range may be more narrow if they have limited skills and abilities (inability to drive due to blindness), recognize fewer cues and supports from the context (recognition of a frown as an indication

of a negative emotion), or lack the personal resources necessary to utilize features of the environment (inability to utilize public transportation due to intellectual limitations).

Person-Environment-Occupation Model

Mary Law introduced the Person-Environment-Occupation Model in 1996 (Law et al., 1996). It was built on concepts from the Occupational Therapy Guidelines for Client Centered Practice and from environment behavior science, including Winnie Dunn. Law presented the PEO model as a basis for incorporating context in occupational therapy clinical practice. According to Law, occupational performance is the product of a "dynamic, interwoven relationship that exists among people, their occupations and roles, and the environments in which they live, work and play" (Law et al., 1996). This is the core of the Person-Environment-Occupation (PEO) Model. The person is defined as a unique individual who assumes multiple simultaneous roles that are dynamic and vary across time and context. The person possesses a set of personal attributes, competencies, and skills with which to participate in occupational performance. Attributes include self-concept, personality style, and cultural background. Competencies relate to motor, sensory and cognitive abilities, in addition to general health. Each person possesses a set of skills as well. The concept of environment is defined broadly within the PEO model, giving equal importance to cultural, socio-economic, institutional, physical and social considerations. Each of these domains is considered from the unique perspective of the person, household, neighborhood, or community. The environment is seen as the context

within which occupational performance takes place. It is dynamic and can either constrict or enable occupational performance. Occupation is defined as groups of self-directed, functional tasks and activities in which a person engages over the lifespan in order to meet his/her intrinsic needs for self-maintenance, expression and fulfillment. They are carried out within the context of individual roles and across different environments. Temporal components have an influence on occupational performance as well. For example, the main influences for an infant are the home environment and parents' routines, while those for a senior are broader and more community-based. Thus, the components of the person, environment and occupation interact across time and space in ways that increase or diminish their congruence. Greater congruence yields more optimal occupational performance. The nature of the components may be altered to increase occupational performance. For example, interventions to adapt the environment or increase a person's physical abilities may increase occupational performance.

The IMPACT2 Model

A model emerging in the 1990s and further developed in the 2000s was the IMPACT2 Model (Integrated Multi-Intervention Paradigm for Assessment and Application of Concurrent Treatments). The model “describes the theoretical relationship of key intervention approaches used to optimize function of people with disabilities”, and underlines the roles of the environment, person and task (Rehabilitation Research Design and Disability Center, 2005). The major contribution of IMPACT2 to the theoretical landscape was the added focus on

intervention on assistive technology. It presented and described 6 concurrent interventions for people with disabilities for which two were assistive technology related. Additionally, IMPACT2 separated universal design and health promotion as 2 distinct pre-interventions, all in the context of PEO. This model provided the foundation for the development of several versions of outcomes instruments that assess the concurrent effects of various interventions including environmental accessibility and assistive technology. (Assistive Technology Outcomes Measurement System Project, 2012)

International Classification of Functioning

The International Classification of Functioning, Disability, and Health (ICF) was introduced by the World Health Organization in 2001 and endorsed as the international standard for viewing health and disability (WHO, 2001). The ICF emphasizes health and views an individual's functioning as an interactive process among a person's body, personal environment, and society. Disability is seen as a state in which impairments cause activity limitations and restrict participation. Contextual factors such as environmental and personal factors influence a person's functioning and can affect participation. These contextual factors may include social attitudes, climate, architectural structures, coping styles, age, gender, education, and behaviors unique to the individual. A person's environment is considered to be integral to the manifestation of disability because it may determine barriers and/or facilitators for participation.

Factors that Limit Participation

Theoretical models for participation point to the environment as the primary barrier for people with disabilities. Research shows that although some participation restricting factors relate to the person, the majority pertain to context. Personal characteristics that have been associated with restricted participation in children with disabilities include limited physical function, social competence, skills and abilities, communication, problem-solving, and decision-making (Law, 2002; Raghavendra, Newman, Grace & Wood, 2013). Individuals with greater physical or cognitive impairments, fewer adaptive skills, and more challenging behaviors participate less in the school environment (Carey, 2012). A child with a disability is impacted by the following family characteristics: household income, parent education levels, caregiver physical function, parental stress, perceived barriers to community activities, and the parents' interest in recreation (Carey, 2012; Law, 2002). Children participate more, express more enjoyment, and develop adaptation skills in families with greater cohesion, stability, and involvement in recreation (Carey, 2012; Masten & Coatsworth, 1998). A supportive family environment improves employment, mobility in the community, and social activity for young adults with spina bifida. Difficulties accessing and using public transportation may reduce participation in community-based activities if the family does not have private transportation options. Barriers in the education setting include lack of environmental modifications and attitudes of activity sponsors. In children with physical disabilities, a significant correlation has been found between structural/physical

barriers in the home or community and the ability to participate in home- and community-based activities. Equipment and structural adaptations are often too costly for families to provide in the home and are frequently not available in the community. Negative social support from peers and the public, institutional and government policies, attitudes of others, and a family's poor knowledge of disability legislation have all been reported as barriers to participation for people of all ages (Carey, 2012; Raghavendra et al., 2013). Spatial proximity to work or other locations of interest and socioeconomic status are factors as well. Issues of poverty, cost of programs, affordable housing, lack of information and physical assistance, lack of inclusion of persons with disabilities in planning, and staff training and attitudes limit participation (Law, 2002; Devine, 2012) In a study of 2,812 community-dwelling older adults, religious participation led to enhanced social support. Although some personal characteristics have been associated with limited participation, research shows that most barriers result from interactions with the environment. A profession with substantial interest in interventions that address these issues is occupational therapy.

Significance of the Problem to Occupational Therapy

Mary Law (2002) describes participation as the "raison d'être of occupational therapy; it is what we are all about; it is our unique contribution to society". The Occupational Therapy Practice Framework states that the profession's domain is to support of "health and participation in life through engagement in occupation" (AOTA, 2008). It recognizes that client factors affect and are affected by contextual and environmental features. In her early work,

Law (1998) explains that as health practices shift orientation from a medical model towards a broader participation view of disability, occupational therapists will need to interact increasingly more with those interested in creating therapeutic and enabling environments, such as social scientists, human geographers, and architects. This shift will necessitate an adjustment in their roles to work with other groups that have parallel person-environment interests. The EHP model provides a framework in which occupational therapists can collaborate with other groups to enhance participation for people with disabilities.

5 EHP Interventions to Increase Participation

The five intervention types described in this section are based on the EHP model. The first approach seeks to change the person, and the three that follow target the context by switching, modifying, or enriching the environment, respectively. With the recognition that changing the person and environment is frequently not feasible, the fifth approach aims to facilitate the interaction between the two.

1. The first intervention is the remedial approach, which aims to establish or restore a person's skills and abilities (Dunn et al., 1994). This is implemented in different ways depending on the needs of the client. For example, Eriks-Hoogland, de Groot, Post, and van der Woude (2011) found that individuals with limited shoulder range of motion at discharge were more limited in their performance of activities one year later than those without limited shoulder range of motion. Although increased performance enhances an individual's capacity to

participate, it does not necessarily correlate with increased participation due to the impact of context (Carey, 2012).

2. A second intervention involves altering the context in which the person performs an activity, selecting a setting that more closely matches his or her current skills and abilities (Dunn et al., 1994). For example, Wood and Williams (2012) suggest the use of virtual learning environments for children with disabilities, as they enable participation in education through a wide range of media to address a variety of learning styles. They also provide benefits for students with mental and emotional needs due to fewer consequences in response to maladaptive behaviors. The study by Wood & Williams (2012) assessed the effectiveness of a virtual learning environment for students with disabilities. Results indicated that student success was aided by such features as the availability of customizable interface settings and the conducting of sessions in both text and voice.

3. In the third approach, the task demands and contextual features are modified to be more supportive of an individual's performance. Social services for financial and transportation assistance has been reported to improve participation (Carey, 2012). In an education setting, Brooke (2008) reported the results of a case study describing an intervention to enhance the participation of a student with autism spectrum disorder. The student's ability to engage was limited by his preoccupation with asking questions, and a tendency to become anxious when the questions were not addressed. A question box was utilized to write his questions on index cards so that they were acknowledged, and to write

the answers to them on the other side of the card when they were eventually responded to. Keeping track of these questions and answers in a box enabled him to relax, and also provided a tool for advocacy (Brooke, 2008). A study by Raghavendra (2013) demonstrated that an internet support program for youth with disabilities was helpful in facilitating participation through the internet. The intervention helped to meet individualized goals, and included education on internet safety, provision of proper equipment and software, training on software and internet use, and assistive technology for interface issues (Raghavendra et al., 2013).

4. The fourth intervention option is to create circumstances that provide more adaptable or complex performance in context. This is done by constructing enriching or stimulating experiences to enhance performance. The concept of universal design (UD) is an example of this approach. The basic principles of UD are as follows: The design is useful to people with diverse abilities; accommodates a wide range of individual preferences and abilities; is simple and intuitive to use; minimizes hazards and the adverse consequences of accidental or unintended actions; can be used effectively with low physical effort; communicates necessary information effectively regardless of ambient conditions or the users' sensory abilities; and has appropriate size and space to provide for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility (NC State University). Equitable access is also provisioned through legislation and policy within the Americans with Disabilities Act, which supports access to employment, transportation, public accommodations, public services,

telecommunications, and government services (U.S. Gov. Accountability Office, 2010). Standard maintenance bodies and legislation such as the World Wide Web Consortium (W3C) and Web Accessibility Initiative (WAI) are also advancing the accessibility of the internet (Moreno, Martinez, Ruiz & Iglesias, 2011). People with disabilities continue to face limited participation due to non-compliance and exceptions, as UD and ADA legislation are only fully effective if they are implemented everywhere.

5. The fifth intervention approach seeks to prevent the occurrence or evolution of maladaptive performance in context (Dunn et al., 1994). This form of intervention is appropriate when the likelihood of negative outcomes can be predicted, and changing the course of activities can increase positive outcomes. The intervention may address the person, context, and task variables to enable functional performance.

Importantly, these 5 EHP interventions are generic and evolved from an occupational therapy perspective. Architects and engineers emphasize and articulate the assistive technology and universal design interventions more specifically as they tend to be lost inside the more globally described approaches of the EHP model. As introduced earlier, the IMPACT2 Model isolates these interventions more deliberately even though the EHP has conceptual categories where these interventions can reside. (Assistive Technology Outcomes Measurement System Project, 2012)

A common social activity that is significantly impacted by the interaction between context and the individual is restaurant dining. The importance of this

interaction is reflected in the range of factors that individuals consider when selecting a place to dine, as discussed in the next section.

General Restaurant Selection Factors for Consumers

Restaurant preferences rely primarily on individuals' age and the types of restaurant experiences they have had and cultural context. Consumers selecting a fast-food restaurant value convenience, speed of service, value, quality, and cleanliness, while atmosphere and menu variety are relatively unimportant (Park, 2004). Fast-food consumers in Korea have been found to value mood, quick service, cleanliness, food taste, employee kindness, and facilities (Park, 2004). For fine-dining experiences, customer relations has been found to be the most important and price as the least important attribute (Njitea, Dunnb & Kima, 2008).

Mature consumers prioritize such factors as sensory perceptions, convenience, social context, attentive and knowledgeable servers, quality of food, cleanliness, convenience, reasonableness of price and availability of senior discounts, effect on health and longevity, proximity to home or work, and comfort for socializing (Sun & Morrison, 2006). Physical aspects of the restaurant are important considerations as well. This may be due to physical, sensory, or cognitive limitations, suggesting that older consumers may have preferences similar to individuals with disabilities. It is likely that both of these groups would make restaurant decisions based at least in part on the accessibility of restaurants.

Little is known about the restaurant selection process, how accessibility affects decisions for individuals with disabilities or whether the restaurant

features they need or prefer differs from people without disabilities. However, research indicates the restaurant selection process for people with disabilities differs from other consumers, as accessibility is uniquely essential to their experience.

The Effects of Providing Accessibility Information to Consumers

Mendonca performed a study that investigated how accessibility information impacted consumer decision-making for people with disabilities. She ran a national web-based survey using a discrete choice modeling methodology with 98 respondents representing a range of impairment types. The survey examined the interaction of accessibility information with cost and external opinions. Results revealed that participants preferred devices when accessibility information was provided. It was also found that over 80% of the participants said that the accessibility information was important to them in choosing the medical devices. Thus, this study highlighted the need for accessibility information in the decision-making process of people with disabilities. (Smith & Mendonca, 2009; Mendonca & Smith, 2011; Mendonca & Smith, 2012)

A study by Erfurth tested the validity of an electronic survey instrument that reported accessibility information about restaurants, designed to provide restaurant accessibility information to people with disabilities to make informed dining choices. The study assessed whether the information impacted dining experiences of people with disabilities. The study was designed and implemented in conjunction with the work of Park, who validated the survey instrument (Park, Smith & Liegl, 2011; Park, Liegl & Smith, 2011). Results

showed that the information did not impact dining experiences. The current study expanded on these findings by assessing the effect of accessibility information, provided in an electronic format via the web, on the restaurant selection process. (Erfurth, 2011; Erfurth, & Smith, 2012; Liegl, Lemke, Park, Erfurth, & Smith, 2011)

Besides the preliminary studies of Mendonca, Erfurth and Park, several information interventions have focused on providing building accessibility information to consumers and people with disability. Early on, mostly as a result of the ADA law in the 1980s, these were paper based guides. Some were available as resources for cities to facilitate community participation by everyone. Recently, a number of websites have tried to create a place where consumers can write accessibility reviews, such as Accessibility World and Wheeling Around Town (Disabled World, 2011; Wheeling Around Town, 2014).

An initial attempt to create this information in a mobile application was called MoTag (Goh et al., 2007). It was designed to allow users to share and retrieve accessibility information to avoid or prepare for potential barriers in the community. Users were to provide images, videos, and/or descriptions of buildings through mobile tags. The application was also to provide official accessibility information from government agencies, including lift access, restrooms, and so forth. Buildings could be searched within the application based on key word or geographical location. The MoTag project was never completed.

A more current development to address this need is a web-based mobile application called Access Ratings for Buildings (AR-B) supported by a federal grant project.

Access Ratings for Buildings (AR-B) Project

The AR-B application is currently undergoing development at the University of Wisconsin-Milwaukee's Rehabilitation Research Design and Disability (R2D2) Center in partnership with Marquette University. The project was funded by the National Institute of Disability and Rehabilitation Research (NIDRR). A number of publications and presentations describe this development work (Schwartz & Smith, 2013; Schwartz, O'Brien, Edyburn, Ahamed & Smith, 2013; Edyburn, Schwartz & Smith, 2013; Park, Smith & Liegl, 2011; Park, Liegl & Smith, 2011, and Erfurth, 2011).

There are two main components of the AR-B software. 1. Users share comments and rate the level of accessibility of building features. 2. Trained raters perform comprehensive objective assessments. The user who accesses the information receives ratings from both of these sources. Importantly and unique to AR-B, the information is personalized and displays only what is relevant to the user's specific accessibility needs and personal profile. The AR-B Project had not documented its efficacy as an intervention or whether it achieves its goal of increasing community participation. As described, one important social activity related to community participation is dining out in restaurants.

This study examined how receipt of restaurant accessibility information affected restaurant choices of individuals with disabilities. The general research

question asks: How does accessibility information about restaurants affect the diversity of restaurant choices for people with disabilities compared to others who only have general review information about restaurants? The following hypotheses were examined:

1. Individuals with a disability who have accessibility information will select a greater number of restaurants they have never visited than people with a disability who have general review information;
2. Individuals without a disability who have accessibility information will select the same number of restaurants they have never visited as individuals without a disability who have general review information;
- and 3. Individuals with a disability who have general review information will select fewer restaurants they have never visited as those without a disability who have general review information.

II. METHODS

Research Design

The study used a classic experimental between-groups design. Participants in two groups (With disability; Without disability) were assigned through matching of specific variables to one of two conditions (Intervention; Control), to create four groups.

Table 1: Project Design

	Intervention	Observation of the Number of New Restaurants			
With Disability	X	O	1		
Without Disability	X	O		2	
With Disability		O	1		3
Without Disability		O		2	3

Participants

A total of 46 participants responded to the initial recruitment for the study: 19 adults with a disability, 27 adults without a disability, and 3 who

provided incomplete information during the enrollment process. The group with disabilities consisted of individuals with vision, hearing, mobility, and multiple impairments. These disability groups were selected because their level of function is most likely to be impacted by contextual factors. For example, people with vision limitations are likely to need Braille signage; people with limited hearing are likely to function better in environments with a low noise volume; and individuals with limited mobility tend to have greater access to buildings with ramps and elevators.

Inclusion Criteria for All Participants:

Age 18 and older

Speak English

Go out to eat more than once per month

Inclusion Criteria for Individuals with Disabilities:

Reports disability (or disabilities) that impacts vision, hearing, or mobility

Variables

The study included two independent variables. 1. The presence or absence of disability, and 2. Receipt of intervention or control.

Intervention and Control**Intervention (AR-B)**

An educational intervention was provided to participants in which they received accessibility information about restaurants. The information was provided via the AR-B web site. The information was created in 3 ways: by the

researcher through objective building assessments, by expert consumer reviewers, and by simulated disability reviewers. For participants with a disability, the information they received was tailored to their specific accessibility needs through the web site's algorithm which matched the users' profile information to the review information that was most relevant to them. Profiles contained their self-rated level of function in each of the following functional areas: Mobility; Vision; Hearing; Cognition; Communication; Upper Extremity; Lower Extremely; Sensory Sensitivities; and Head, Neck, or Back. After completing the profile, participants received Trained Rater information that was strictly relevant to their limitations as reflected in their profiles, and received consumer reviews only from other reviewers with similar profiles. For example, an individual with impaired mobility would have received information that responded to his or her needs for ramps, elevators, and so forth. Participants without a disability received accessibility information that was not filtered for functional limitations. Figure 1 shows a screenshot of a restaurant's profile in the AR-B web site.¹

Control (Yelp)

The control groups received general review information about the restaurants from Yelp.com. Figure 2 shows a screenshot of a restaurant profile though Yelp.com.

The screenshot shows the 'Access Place' app interface for a business named 'Pizza Shuttle'. The top navigation bar is blue with the 'Access Place' logo and tagline 'Personalized building accessibility information'. It also includes a search bar, 'Account', 'About', and 'Help' links, and a 'Welcome nlspeath' message with a 'Log out' option.

The main content area is titled 'Pizza Shuttle' and is divided into two columns. The left column contains an 'About Pizza Shuttle' section with the following text: 'Address: 1827 N Farwell Ave, Milwaukee, WI, United States', 'Phone: (414) 289-9993', and 'Summary rating by people like you: ★★★★★'. Below this is a Google Map showing the location of 'Comet Cafe' at the intersection of N Farwell Ave and E Brady St. The right column is titled 'Reviews' and contains a prompt: 'Click on a category below view accessibility evaluations and reviews for that category.' Below this is a list of accessibility categories with their respective user counts and star ratings:

- Overall Accessibility (1 users) ★★★★★
- Stairways
- Ramps
- Elevators (3 AR-B comments)
- Handrails
- Parking
- Restaurant Features (7 AR-B comments)
- Routes
- Floor/Ground
- Doorways
- Restrooms (1 AR-B comments)
- Tables and Chairs (1 users) ★★★★★
- Signage (1 users) ★★★★★

Figure 1: Screenshot of AR-B

yelp

Pizza Shuttle

★ ★ ★ ★ ☆ 148 reviews [Details](#)

\$ · Pizza [Edit](#)

1827 N Farwell Ave
Milwaukee, WI 53202
Lower East Side
Get Directions
(414) 289-9993
Message the business
pizzashuttle.com

OMG this is what \$8 calamari looked like... by Dear P.

"I ordered a lot of food, ravioli, **bosco sticks**, a salad and bread sticks (came with the ravioli). All excellent." in 6 reviews
\$7.40 Bosco Sticks · [View the full menu](#)

"They're **open late** and have great student nights so they're perfect for the campus area." in 20 reviews
Good For: Late Night

"There is a jukebox, **photo booth**, crazy art and who could forget the inflatable cow." in 6 reviews

Recommended Reviews

Your trust is our top concern, so businesses can't pay to alter or remove their reviews. [Learn more.](#)

Dana W.
Milwaukee, WI
0 friends
★ 6 reviews

★ ★ ★ ★ ☆ 5/22/2014

Let me just start by saying that we order Pizza Shuttle entirely too often. I love that this place is open late and has really fast delivery service. We are typically quoted 45-60 minutes and it seems to never take more than 30. Customer service is also really decent for a late-night joint. We had an incorrect delivery (and cold...) ONE night out of the probably 50+ times we have ordered from them. We called and the situation was handled very well. They offered to remake the order even though they were already closed, but we just took a credit.

I also love that you have a choice of crust types without an additional charge. My favorites are the Milwaukee thin crust and the Detroit-style (newish). We usually get either pepperoni and pineapple or sausage mushroom and onion. I think they use some sort of sweet onions on their pizza, which makes it pretty much addicting. They also load 'em on, so be ready. The mushrooms they use are a fun variety and fresh, not canned. Huge plus. The appetizer selection is kind of daunting to read through and generally unimpressive. The chicken wings are awesome and we have never been disappointed by one of their wing sauces.

Order delivery or pickup

Pickup
 Enter your delivery address
1 Yelp St., Chicago, IL 60601

Today 10:00 am - 3:00 am **Open now**

[Full menu](#)

\$\$\$\$ Price range Under \$10

Hours

Mon	10:00 am - 3:00 am
Tue	10:00 am - 3:00 am
Wed	10:00 am - 3:00 am Open now
Thu	10:00 am - 3:00 am
Fri	10:00 am - 4:00 am
Sat	10:00 am - 4:00 am
Sun	10:00 am - 3:00 am

[Edit business info](#)

Menu

Gyro Price varies
Adam C. I have spent more money at Pizza Shuttle than I care to admit. It's not that they have great pizza...

Hawaiian Price varies
Spicy Battered Fried Pickles (8) 5.99

[View the full menu](#)

More business info

Takes Reservations **No**
Delivery **Yes**
Take-out **Yes**

Figure 2: Screenshot of Yelp

Project Procedures

Table 2: Overall Procedures

Creation of Accessibility Information	<ul style="list-style-type: none"> • 20 Milwaukee restaurants; focused on vision, hearing & mobility • Using AR-B Trained Rater application
Recruitment	<ul style="list-style-type: none"> • With Disabilities (N=17); Without Disabilities (N=17) • Complete Eligibility Survey to determine eligibility
Data Collection (1): Survey 1: Dining History and Preferences	<ul style="list-style-type: none"> • Participants indicate whether they have been to each of the 20 restaurants within the previous 2 years
Restaurant Assignment	<ul style="list-style-type: none"> • The researcher will compose a list of 10 restaurants unique to each participant, half of which will be new restaurants, half of which will be ones they've visited in the previous 2 years
Implemented Intervention/Control	<ul style="list-style-type: none"> • Intervention: Accessibility information for each listed restaurant • Control: General review information for each listed restaurant
Data Collection (2): Survey 2: Restaurant Selection	<ul style="list-style-type: none"> • Participants select 5 restaurants from their list of 10 to dine at • Will have 2 days to read review information and make selections
Data Analysis	<ul style="list-style-type: none"> • Quantitative: Mann-Whitney U-test • Qualitative: Indicate restaurant selection factors

Creation of Accessibility Information

The AR-B web site database was populated with accessibility review information for participants in the intervention group to use during the data collection phase. This included selection of the 20 restaurants that would be included, and the composition of Trained Rater evaluations, Expert User reviews, and Simulated Disability Reviews of all 20 restaurants that were included in the study.

Selection of Study Restaurants

Restaurants were identified that were located on the East side of Milwaukee and spanned a variety of food types. Casual and fast food restaurants were selected, excluding fine dining, vending food providers, and food carts. Level of accessibility was not a factor in the selection process. The levels of accessibility of the 20 restaurants based on Trained Rater evaluations varied widely among the restaurants and across disability types within each restaurant. Among the 20 restaurants, the average accessibility rating for low vision was 4.6 and ranged from 4-5; the average rating for impaired mobility was 3.1 and ranged from 1-5; and the average rating for low hearing was 4.25 and ranged from 3-5.

Trained Rater Evaluations

A group of 4 graduate students trained in disability with some advanced work in accessible design conducted comprehensive accessibility evaluations.

This included the following steps:

1. **Evaluator Training:** The researcher gained an advanced understanding of building accessibility, and then led a 5-hour training session with the other 3 evaluators.
2. **Creation of Assessment Instrument:** The evaluation instrument was comprised of 131 items that were hand-selected from Accessibility and Universal Design Information Tools (AUDITs). The AUDITs had been previously created as part of the ACCESS-ed project at the R2D2 Center. The team discussed the relevance and utility of each item before agreeing on the final set. Items were modified if needed to clarify wording and specificity.

- They were organized into the following categories: Stairways, Ramps, Elevators, Handrails, Parking, Restaurant-Specific Features, Routes, Floor/Ground, Doorways, Restrooms, Tables and Chairs, and Signage. Refer to Appendix B for the evaluation instrument.
3. **Building Assessments:** The evaluators assessed the 20 restaurants included in the study over the course of 5 weeks. Evaluations were carried out in teams of 2, and the researcher was present during all of them. Tools that were utilized during the process included a level and a tape measure. The team spoke with restaurant staff to complete some items, such as the provision of adaptive silverware and Braille menus. Each evaluation required 1-2 hours to complete.
 4. **Entry into AR-B Database:** Data from the paper evaluations were entered into excel spreadsheets. For each restaurant, the spreadsheet displayed the response that corresponded to each evaluation item. Responses were either "Yes", "No", or "Maybe", with a "Notes/Comments" section to further explain the response if needed. The items were coded according to the functions they were relevant to. The coding was used to sort retrieval of the data in the AR-B web site based on relevance to users' profiles, as previously described. The completed reviews are included in Appendix B.

Expert User Reviews

Four expert users completed consumer perspective reviews of the 20 restaurants: 1 with a hearing impairment, 2 with mobility impairments (each completed half of the restaurants), and 1 with a vision impairment. The

researcher provided them with instructions and was present during the first restaurant visit to clarify the task and answer questions. They ate at each restaurant as they would in their daily life and provided feedback for each of the categories that were included in the Trained Rater evaluations. Reviews were entered directly into the AR-B web site.

Simulated Disability User Reviews

Two disability experts composed consumer perspective reviews for the 20 restaurants from the perspectives of individuals with hearing, mobility, and vision impairments, respectively. Reviewers had eaten at every restaurant that they reviewed. Reviews were entered directly into the AR-B web site. The Simulated Disability Reviews are included in Appendix B.

Recruitment

The research investigators met with 5 disability organizations to present the study and request their assistance with recruitment. We met with Vision Forward, the Accessibility Resource Center (ARC) (student disability services office) on UW-Milwaukee campus, Independence First, the Center for Communication, Hearing, and Deafness, and the Milwaukee County Office for Persons with Disabilities. Each organization expressed interest in supporting the study recruitment through distribution of study information via their email lists. The team sent electronic recruitment flyers to each organization following each respective meeting.

Initial participant response. Participants who contacted the researcher with interest in the study completed the Eligibility Survey, either via e-mail or over

the phone with the researcher. Items on the form were designed to ensure that individuals met the inclusion/exclusion criteria. Responses to items on the form were also utilized to gauge individuals' likelihood of carrying out the study's tasks and providing unbiased data.

There was a total of 46 potential participants who contacted the researcher with interest in the study. Of those, 19 had disabilities, 24 were without disabilities, and 3 failed to complete the full enrollment process. Of those with disabilities, 17 were selected to participate in the study. Two people with disabilities were excluded. One with mobility impairment was excluded due to time spent out of town, as study participation required a moderate time commitment. One other individual was excluded due to a lack of access to and familiarity with the Internet, as the intervention and control conditions required use of the internet. Amongst the potential participants without disabilities, 17 were selected for a group size equal to that of the group with disabilities. Of these that were not selected, 5 were excluded because they knew someone else in the study (family, friend, co-worker, or care-giver), 1 who didn't have access to and wasn't familiar with the internet, and one who was excluded at random to achieve the desired number in the group.

Participant reduction due to later exclusion or drop out. Some drop out of participants occurred at each stage of the study. A total of 46 individuals contacted the researcher with interest in taking part. When data collection began, 34 participants were selected to take part during the first round of data collection.

They received Survey 1, and 25 participants completed the survey. These participants received Survey 2, and of these, 14 responded.

Table 3: Rate of Drop Out at Each Phase

Stage	Number of Participants
Initial Recruitment	46
Selected to Take Part	34
Enrolled After Drop-Outs	31
Completed Survey 1	25
Completed Survey 2	14

Study participants. A total of 34 participants were accepted to participate in the study: 17 with disabilities and 17 without disabilities. Of those with disabilities, there were 9 with mobility impairment, 5 with vision impairment, 2 with a hearing impairment, and 1 with multiple disabilities. In a parallel process, a research team member not associated with the recruitment process assigned participants to either the intervention or control group through matching variables. Groups matched based on age resulted in groups that were unbalanced. Groups were then matched based on the number of times per month they reported dining out. This resulted in more balanced groups.

Demographic description of enrolled participants. Three participants dropped out of the study after the start of data collection. One with a vision

impairment indicated that he did not have the financial resources to take part; one with vision impairment did not report a reason; and one without a disability explained that she was going to be out of town during the majority of the data collection period. The enrolled group of participants after the 3 who dropped out included 30 individuals with a mean age of 46.84. In all four groups, the level of education ranged from some college to some doctorate level courses or a doctorate degree. Compared to participants without a disability, those with a disability more frequently reported use of the following modes of transportation: Bicycle, Bus, Medical or disability transportation services, and Taxis. The number of times they reported dining out per month was approximately equal for those with and without disabilities.

Data Collection

Survey one: Dining history and preferences.

A total of 25 participants responded to the Dining History and Preferences survey. In the first part of the survey, participants were asked to list 5-10 features that they value in a restaurant when choosing a place to dine out. They then responded to several Likert-type questions pertaining to their dining habits, such as how often and with whom they go out to eat. In the third part, they viewed the list of 20 restaurants included in the study and indicated whether and how often they visited each one.

Restaurant assignment. For each participant, an individualized list of 10 restaurants was generated that consisted of 5 restaurants where they had previously eaten and 5 where they had never dined. In addition, restaurants were

selected for their individual lists based on restaurant features that they described as most important to them on Survey 1. For example, if they listed "parking" as an important feature, restaurants were added to their list that had good parking.

Selection of restaurants followed 3 steps:

1. Selection of restaurants the participant had never been to: Five restaurants that the participant had never been to were selected from the list of restaurants that they marked as having never visited. There were 4 instances in which there were fewer than 5 restaurants that the participant had never been to. In these cases, they were asked to fill in the remaining restaurants with ones that they had never been to that were similar to the others on the list, and to look up information for these at Yelp.com.

2. Selection of restaurants that they had previously been to: Five restaurants were selected that they had been to but that they had not visited frequently. This was done by selecting restaurants from a list that they marked as "Rarely". If there were not 5 in this category, restaurants were chosen from the list that they marked "Occasionally".

Survey two: Restaurant selection.

A total of 14 participants responded to the Restaurant Selection survey. They listed each of the 5 restaurants that they selected to dine at based on the review information that they read, as well as 5-10 features of each restaurant that led to their decision to select it. They then answered open-ended questions regarding their selection process.

Data Analysis

Quantitative Data

Three Mann-Whitney U-tests were used to compare the mean number of new restaurants selected between each of the 4 groups. The Mann-Whitney U-test is a powerful non-parametric test to compare group means, and does not require groups to be of equal size. This test was selected because the sample did not meet the requirements for a parametric test. It was not randomly selected from a population with a normal distribution, and the samples compared were not homogeneous. (Portney & Walkins, 2008, p. 206)

Qualitative Data

Participants answered the following question on Survey 1: Dining History and Preferences: "Please list the characteristics you look for in a restaurant when deciding where to dine out". Participants were asked to list 5-10 characteristics, and then to list the top 3 in order of importance. Responses were coded based on factor type. For example, restaurant characteristics pertaining to accessibility, such as Braille menus and table height, were coded as such. The number of times each feature was reported was compared between the Disability and Without Disability groups. Analysis yielded the restaurant selection factors of greatest importance to each group.

III. RESULTS

Quantitative Results

Selection of New Restaurants

The 3 hypotheses were tested by comparing the number of new restaurants that were selected in each group. A Mann-Whitney U-test assessed the 3 hypotheses. Table 4 shows the participant number, mean age, and number of new restaurants selected in each group. Figure 3 shows the number of new restaurants selected in each of the 4 groups, broken down by the number of participants per group who selected each quantity of new restaurants.

Table 4: Participant Response of Number of New Restaurants and Age

Group	N	Mean Age (SD)	N Restaurants (SD)
Total	16	41.81(15.88)	2.00(1.03)
Intervention	8	40.25(17.19)	1.88(.83)
Control	8	43.38(15.46)	2.13(1.25)
Disability	9	45.00(18.00)	2.56(.73)
Without Disability	7	37.71(12.78)	1.29(.95)
Intervention / Disability	5	45.60(20.17)	2.40(.55)
Intervention / Without Disability	3	31.33(17.91)	2.75(.96)
Control Disability	4	42.50(15.33)	1.50(1.29)
Control Without Disability	4	41.81(15.88)	2.00(1.03)

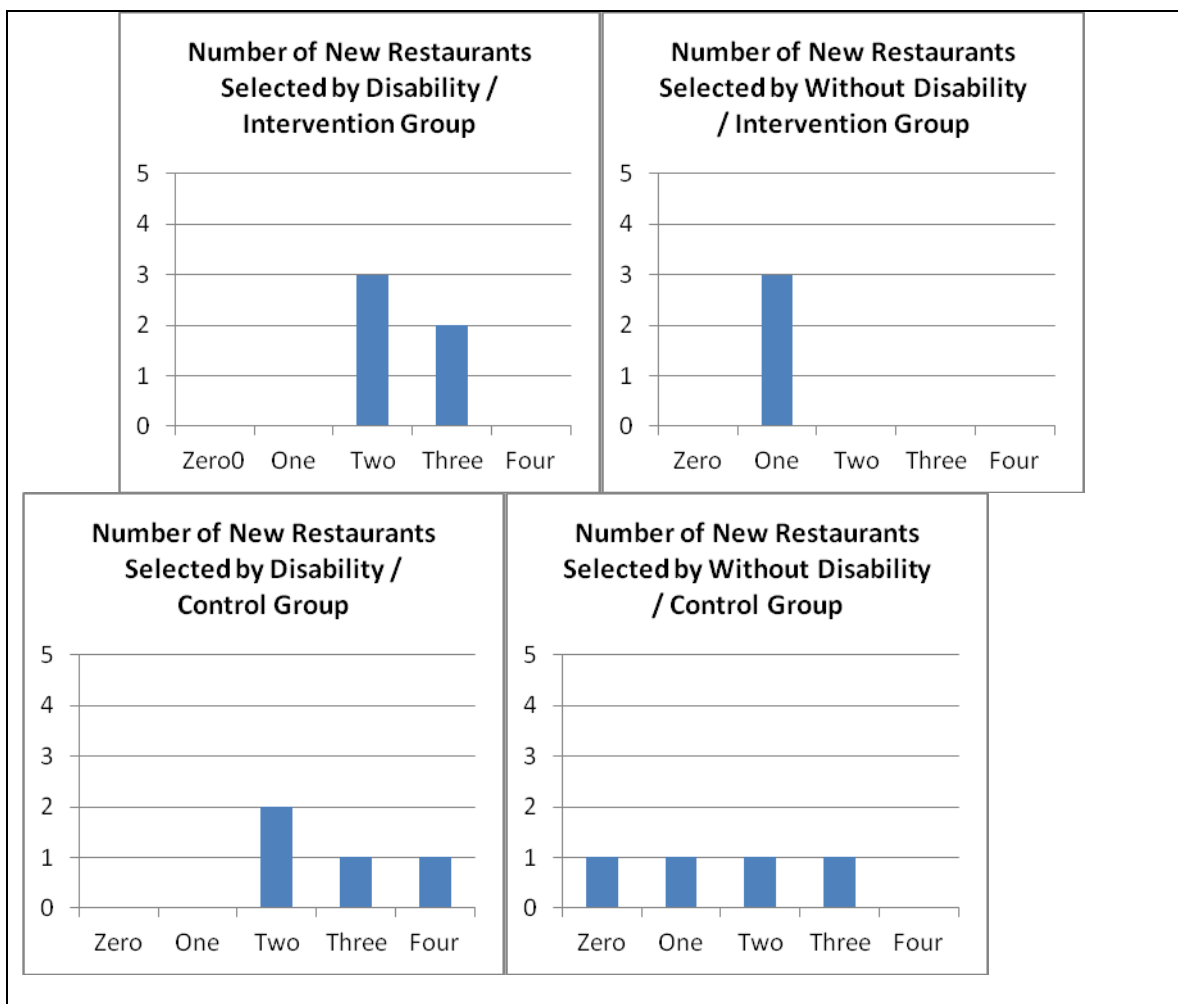


Figure 3: Number of New Restaurants Selected by Each Group

Table 5 displays the results of the Mann-Whitney U-tests for the 3 hypotheses.

Hypothesis 1: The first hypothesis states that individuals with disabilities who have accessibility information will select a greater number of restaurants they have never visited than people with disabilities who have general review information. The Mann-Whitney U-test was not significant, showing that the

intervention did not increase the number of new restaurants selected by participants with disabilities.

Hypothesis 2: The second hypothesis states that individuals without a disability who have accessibility information will select the same number of restaurants they have never visited as individuals without a disability who have general review information. As predicted, the Mann-Whitney U-test was not significant, showing that the restaurant selection of participants without a disability was not statistically different than the group without disabilities.

Hypothesis 3: The third hypothesis states that individuals with disabilities who receive general review information will select fewer restaurants they have never visited than those without a disability who receive general review information. Results showed no significant difference.

Table 5: Results of Mann-Whitney U-test Between All Groups

Hypothesis	Group	N	Mean	SD	Mann-Whitney U Sig
1	Disability / Intervention	5	2.56	.73	
	Disability / Control	4	1.5	.52	.73
2	No Disability / Intervention	3	1.29	.95	
	No Disability / Control	4	1.5	.52	.63
3	Disability / Control	4	2.75	.96	
	Without Disability / Control	4	1.50	1.29	.20

Consumer Characteristics: With and Without Disabilities

Four consumer characteristics were assessed from Survey One: Dining History and Preferences. These characteristics were measured by responses to the following survey questions: 1. "I go out to eat often"; 2. "I tend to eat at the same restaurants"; 3. "I enjoy trying new restaurants"; and 4. "I go out as frequently as I would like to". The group with disabilities was compared to that without disabilities, and the intervention group was compared to the control group using both 2-tailed independent samples t-tests and Mann-Whitney U-Tests. As Table 6 and 7 show, no significant differences were found.

Table 6: Dining Preferences (Survey One) responses comparing people with a disability to people without a disability

Question	N	Question Mean	Mean(SD) Disability	Mean(SD) Without Disability	T-test*	Mann-Whitney U
I go out to eat often	24	5.50(.89)	5.25(.97)	5.75(.75)	.17	.29
I tend to eat at the same restaurants	24	4.67(1.49)	4.50(1.45)	4.83(1.48)	.59	.47
I enjoy trying new restaurants	24	6.29(.75)	6.25(.75)	6.33(.78)	.79	.75
I go out to eat as frequently as I would like to	24	4.50(1.62)	4.33(1.44)	4.67(1.83)	.62	.43

*2-tailed independent samples t-test

Table 7: Dining Preferences (Survey One) responses comparing Group 1(Intervention) to Group 2 (Control)

Question	N	Question Mean	Mean(SD) Intervention	Mean(SD) Control	T-test*	Mann-Whitney U
I go out to eat often	24	5.50(.89)	5.25(1.05)	5.75(.62)	.17	.20
I tend to eat at the same restaurants	24	4.67(1.49)	4.83(1.03)	4.50(1.88)	.60	.98
I enjoy trying new restaurants	24	6.29(.75)	6.08(.67)	6.50(.80)	.18	.12
I go out to eat as frequently as I would like to	24	4.50(1.62)	4.33(1.72)	4.67(1.56)	.62	.64

*2-tailed independent samples t-test

Qualitative Results

Restaurant Features

Participants listed several factors important when selecting a place to dine as part of Survey 1: Dining History and Preferences. They first listed 10 features that are important to them when they select a place to dine as an open-ended response type question. They then listed their top 3 most important. Table 8 displays the frequency with which each was reported. The most frequently reported features were quality, cost/value and accessibility. Other reported features included the following: proximity/location, taste, healthy/organic foods, dietary needs, and customer service/speed of service, variety, atmosphere, parking, cleanliness, where others go, preferences, and recommendations.

Table 8: Frequency Valued Restaurant Features Were Reported

FEATURE	Total Participants	With Disability	Without Disability
Quality	9	5	4
Cost/Value	14	5	9
Accessibility	9	8	1
Location/Proximity	11	8	3
Taste	9	4	5
Healthy/Organic Foods	5	3	2
Dietary Needs	4	2	2
Customer Service/Speed of Service	9	1	8
Variety	5	3	2
Atmosphere	3	0	3
Parking	3	2	1
Cleanliness	4	2	2
Where others go	3	5	0
Preferences	2	1	1
Recommendations	1	1	0

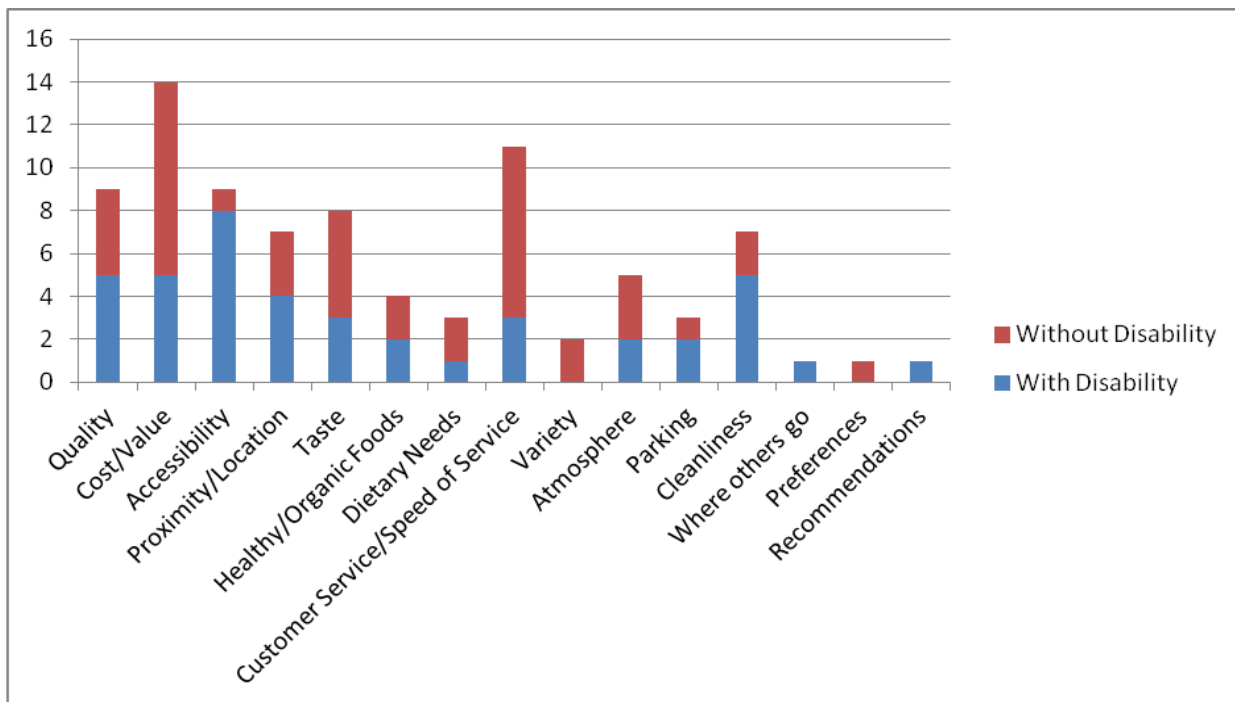


Figure 4: Valued Restaurant Features by Group and Total

Utility of AR-B reviews

Many benefits to receiving the AR-B web site review information were reported by participants both with and without disabilities. On Survey 2: Restaurant Selection, they were asked to select the 5 restaurants they wanted to dine at after reading review information about each restaurant. Participants in the intervention group read accessibility information on the AR-B web site. They then answered 5 questions regarding their selection process, one of which asked if the review information was helpful. After responding “Yes” or “No”, they explained “Why” or “Why not” as an open-response type question.

IV. DISCUSSION

The results of this study emphasize the importance of accessibility to people with disabilities. The study shows that review information about restaurants, especially that which pertains to accessibility, seems to encourage people with disabilities to diversify their restaurant selections. In addition, this investigation revealed that accessibility information may also be of helpful to people without disabilities.

Hypothesis 1:

The first hypothesis posed that people with disabilities who use the AR-B website that contains personalized accessibility information would select a greater number of new restaurants than those with disabilities who received the general review information from Yelp.com. Although this was not statistically shown due to a small sample size and therefore we need to be cautious in interpretation, group differences were clearly visually apparent, as shown in Figure 5.

With accessibility information, people with disabilities are able to make their decisions based on features of highest priority to them. When listing restaurant features of importance, those related to accessibility were reported at a much higher frequency than were other features. Participants explained how the information was helpful. One participant with a disability stated that it was very detailed, and that it helped her to know what to expect. She explained "The main feature of a new restaurant I am considering is if the entrance is level or not and where I will park my car. Once I know that information then I work backwards

on other access features (restrooms, tables) and only then do I think about the food (sad but true)". Another participant reported that the site provided him with everything he needed to know about a restaurant, "...how I would be able to order despite my disability and explained how the places catered to those disabilities." A third participant with a disability appreciated that the reviews provided information about restaurant features "from people whose needs are similar to mine." Participants noted several specific features that were helpful, such as table height, Braille menus, parking, and the entrance. The AR-B site responds to this need for specificity in its ability to tailor the accessibility information provided to the needs of each user.

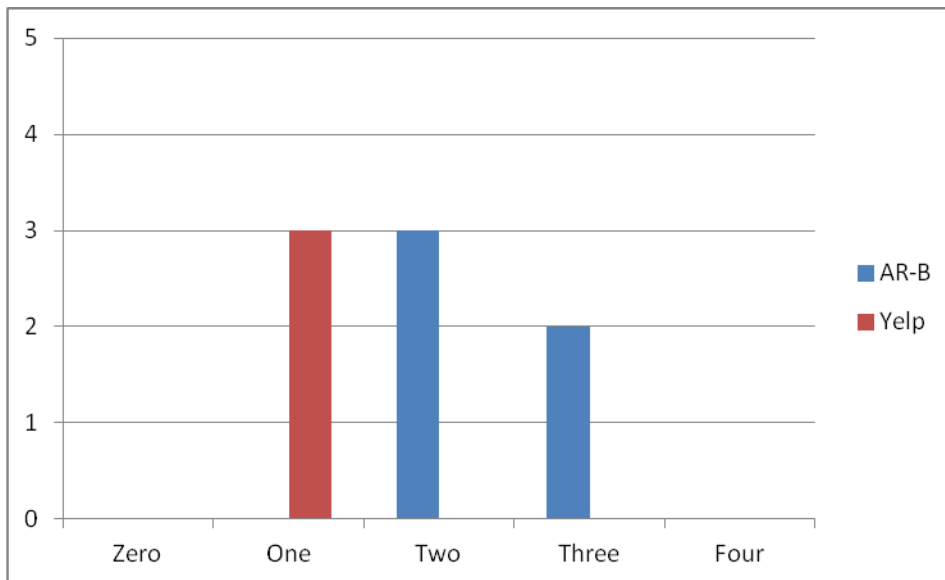


Figure 5: Number of New Restaurants Selected by Participants With Disabilities- AR-B vs. Yelp

Hypothesis 2:

The second hypothesis posed that those who use the AR-B website would not differ in the number of new restaurants selected by people without disabilities relative to those who use general Yelp.com information. This was not seen as

statistically significant so was supported the hypothesis, as shown in Figure 6. However, participants reported various ways in which the information would be beneficial to them. One participant stated that it provided good facility information, and that it enlightened her to how much facilities lack. Another participant stated: "I like knowing if a place is well lit and if I'll be able to have a conversation. Sometimes I go with a friend who has a stroller, so this could be useful info about stairs and accessibility." These findings are consistent with the principles of Universal Design (UD) that philosophically promote that better design for people with disabilities is better is better design for everyone. For example, adequate space between tables provides room for both wheelchairs and strollers.

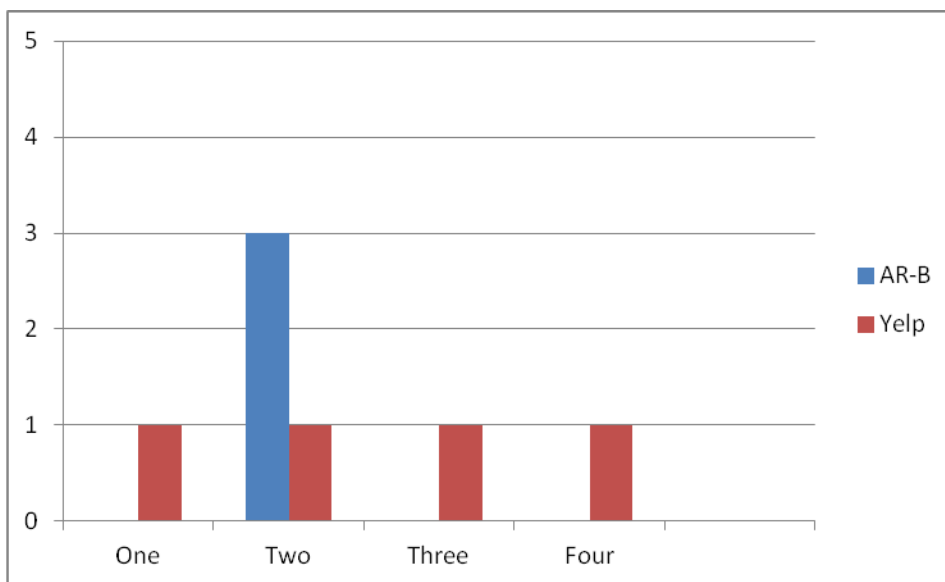


Figure 6: Number of New Restaurants Selected by Participants Without Disabilities- AR-B vs. Yelp

Hypothesis 3:

The third hypothesis posited that participants with disabilities who use the general information in Yelp.com would select fewer new restaurants than those without disabilities who use Yelp.com. This hypothesis was based on the premise that people with disabilities likely participate in the community less and go to

fewer new places related to an apprehension of community barriers in general. This difference, however, was not statistically significant. In fact, as shown in Figure 7, visual results are of interest as they show a tendency of the reverse. Participants with disabilities actually seemed to select more new restaurants with yelp.com information. This could indicate that people with disabilities diversify their restaurant choices with any type of review information, whether it is specific to accessibility or not. If indeed people with disabilities inherently limit their restaurant dining and selection of new restaurants, a study like this that encourages outside dining and encourages the use of any review information may shift their choice and expand their interest in new restaurants more than for people without disabilities.

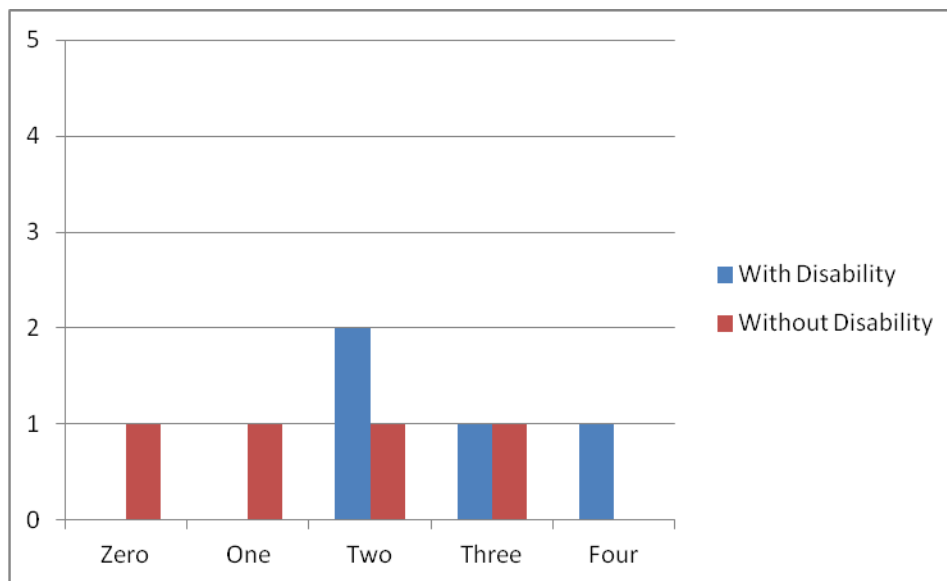


Figure 7: Number of New Restaurants Selected by Participants With vs. Without Disabilities- Yelp

Limitations

The study encountered a number of limitations. These were mostly related to a restricted sample and procedural challenges. The sample size was small as a result of a lower than anticipated response rate to recruitment efforts, as well as participants who dropped out at various points after enrollment. Although this impacted the statistical significance of the results, visual analysis of the data reveals promising tendencies as pilot evidence that suggested an effect of accessibility information toward diversifying restaurant choices. The recruitment methods that were utilized may have also produced a biased sample. Relative to the general population, the sample contained a greater proportion of participants without disabilities who had an enhanced understanding of accessibility, as recruitment was primarily through organizations that serve individuals with disabilities. This could have skewed their appreciation for the AR-B information. The sample also had a dearth of individuals with disabilities who do not dine out frequently. The volunteer participants may have been self-selected as being already active community participators. Missing from this sample are individuals who have minimal access to the internet, which was the main recruitment medium, and may also be less involved with the community organizations that distributed the recruitment information. It seems plausible that AR-B would have more of an impact on people with disabilities that are not already active in the community.

Another limitation resulted from participants encountering technical difficulties and miscommunications during the course of the study. Participants

contacted the R2D2 Center due to issues with the Qualtrics survey system and later with the AR-B website. Such issues were only reported by a few participants and were quickly resolved, but suggest that the study had access barriers in itself. This could have tempered the enthusiasm for using the intervention. Miscommunications were also apparent on occasions. Participants completed tasks in ways that did not adhere to the instructions as intended. Some participants selected restaurants from the full list of 20 included in the study instead of the specific list of 10 that was sent to them. In these cases, participants were immediately contacted and guided through the selected process. Responses to these issues will proactively be used for future related research.

A last limitation may have resulted from confounding variables related to specific participant characteristics. For 3 participants, there were not 5 restaurants in the 20 in the study where they had never dined. A modified method was used to provide these participants with a list of 10 restaurants containing 5 where they had not previously dined. Their list included the ones in the 20 study restaurants that they had never been to, and they were instructed to fill in the remaining dining slots with other restaurants where they had never been, but similar to others on their list. They were instructed to read review information about these restaurants at Yelp.com, regardless of whether they were in the intervention or control group. These variations could have impacted the results. If there was an effect it would have lessened the use and therefore

potential effect of the AR-B intervention, since the AR-B information was only available for the study's 20 restaurants.

Other participant characteristics that may have impacted results were related to the unknown other factors that dictated their restaurant selections. Participants indicated on the Dining History and Preferences Survey what features of each restaurant that they chose led to their selection of that restaurant. Responses to that question revealed that some participants may have based their choices on specific factors that were important enough to minimize the impact of any AR-B or Yelp website information. For example, some participants may have only chosen restaurants where they had never dined before based on where their friends go. Attempts were made to minimize this affect during the individualized and matched assignment of restaurants across groups, but there were many factors to match and some residual bias likely existed.

Ethical Considerations

To ensure protection of participants, the study received permission from the Institutional Review Board at UW-Milwaukee. Participants received \$75 in compensation for their time and expenses.

Conclusion

Although 2 of the 3 hypotheses were not statistically supported by the results due to a limited sample size, visual assessment of figures and qualitative analysis indicate that this is a promising pilot study which reveals results that are consistent with the hypotheses and the project's theoretical basis. Figures

comparing groups showed the tendency that participants with disabilities who received accessibility information through the AR-B website chose more new restaurants than those without disabilities. Qualitative results indicated that the AR-B accessibility information is beneficial for people both with and without a disability. Valued restaurant features listed by participants also underlines the significance of accessibility for this population.

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V. APPENDICIES

Appendix A: Restaurant Evaluation Form

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?		
Signage	Is the sign in a non-glare finish?		
Signage	Are pictograms easy to see and understand?		
Signage	Is the size of the text on sign functional?		
Signage	Is there Braille on the sign?		
Signage	Are Braille signs on the latch side of the door?		
Restrooms	Is there tactile signage identifying accessible restrooms?		
Restrooms	Is the bathroom door manual?		
Restrooms	Is the restroom open to the public (does not require a key or passcode to open)?		

Restrooms	Is the bathroom door width 32" or greater?		
Restrooms	Is stall door operable with a closed fist both inside and out?		
Restrooms	Is the stall door width 32" or greater?		
Restrooms	The accessible stall is at least 5'X5'.		
Restrooms	Are toilets positioned with wall to the rear and on one side?		
Restrooms	Are toilets 17-19" high?		
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?		
Restrooms	Is there a back rest for the toilet?		
Restrooms	Is it manual flush? If so, where is it located?		
Restrooms	Can toilet be flushed with a closed fist?		
Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?		
Restrooms	Is the toilet paper easily reached?		
Restrooms	Is the bottom edge of the mirror 40" or lower?		
Restrooms	The sink height is 34" or lower.		

Restrooms	Is the clear depth under the sink is 8" or greater?		
Restrooms	Can faucets be operated with one closed fist?		
Restrooms	Are soap, other dispensers and hand dryers within reach?		
Restrooms	If the faucets are manual, do they allow a water flow for at least 10 seconds after release?		
Restrooms	Are exposed pipe under sink insulated, shielded from contact and without sharp edges?		
Doorways	Is door actuator associated with door in proximity with tactile signage and intuitively placed?		
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door swings?		
Doorways	Is there an entranceway on an accessible route?		
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances?		
Doorways	Is the clear width of the doorway is 32" or greater?		
Doorways	Is the doorknob height 48" or lower?		
Doorways	Is there a threshold? If so,		

	how high?		
Doorways	Can the door be opened with a closed fist and little physical effort?		
Doorways	Does it take at least 3 seconds for the door to close?		
Doorways	Are doors automatic with push button?		
Doorways	Are doors manual and weighed?		
Doorways	If applicable, can a person get from the actuator to the automatic door before it closes?		
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all seasons including when wet?		
Floor/Ground	Is the accessible route across a grating, the long dimension of the grating openings are at right angles to the direction of travel and the narrower dimension is less than 1/2 inch?		
Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without getting caught in surface variations?		
Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?		
Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?		

Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a firm or no padding?		
Routes	At any place where the accessible route meets a curb, is there a curb cut that complies with ADA-ABA standards?		
Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the surface?		
Routes	Where the accessible route makes a U-turn, is it at least 42 inches wide approaching the turn, and 48 inches wide in the turn?		
Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or less?		
Routes	Does anything stick into the accessible route?		
Routes	Does the accessible path signage indicate key landmarks and features to which it leads?		
Tables and Chairs	Is there adequate toe (horizontal) clearance at tables?		
Tables and Chairs	Is there adequate knee (vertical) clearance at tables?		
Tables and Chairs	Are accessible seating dispersed throughout the restaurant?		

Tables and Chairs	Is wheelchair seating out of the pathway?		
Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the accessible path?		
Tables and Chairs	In a fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?		
Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?		
Elevators	Where is the elevator located?		
Elevators	Is the clear landing space large enough to allow wheelchairs users to access call buttons and keypads?		
Elevators	Is there an accessible path to the call buttons, elevator door and paths into and out of the elevator?		
Elevators	Is the auditory signal directional and easy to hear but not too loud?		
Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is traveling?		
Elevators	Does the auditory or visual signal provide enough time to get into the elevator that opened?		

Elevators	Is there signage on each side of the elevator, including Braille and tactile letters?		
Elevators	Are buttons to higher floors above buttons to lower floors?		
Elevators	Are the buttons large enough that they could be easily pressed without a finger to press the button?		
Elevators	Are the buttons raised from the surrounding surface?		
Elevators	Do call buttons provide feedback to indicate the call is registered?		
Elevators	Are the handrails on all non-door walls of the elevator?		
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit the elevator?		
Handrails	What feature are the handrails a part of?		
Handrails	Are the handrails continuous across the runs of the ramp/stairs?		
Handrails	If there is a landing, is the inside handrail continuous?		
Handrails	Does the handrail extend beyond the top of the ramp/stair?		
Handrails	Does the handrail end in a curved fashion?		
Handrails	Does the handrail stay at a consistent and fixed height for		

	the duration of the run?		
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail?		
Handrails	Are the handrails sturdy the whole length of the run?		
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom?		
Parking	Is there are parking lot or street parking?		
Parking	Are accessible parking spaces marked?		
Parking	Are the accessible parking signs easily readable?		
Parking	How many accessible spaces are there?		
Parking	How many van accessible spaces are there?		
Parking	How many total parking spaces are there?		
Parking	Do any of the spaces have access aisles? (all, most some, none?)		
Parking	Are access aisles part of the accessible route and closest to the accessible entrance?		
Parking	Are parking spaces level?		

Ramps	Where is the ramp located?		
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?		
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes directions?		
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when there is frost?		
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is perpendicular to the usual direction of travel on the ramp?		
Ramps	What is the slope of the ramp?		
Ramps	What is the cross slope of the ramp?		
Ramps	What is the length of the ramp?		
Ramps	Is there more than one landing? If so, how many are there?		
Ramps	Are there handrails on both sides?		
Ramps	Is there a large enough landing on the top and bottom of ramp?		
Stairways	Where are the stairs located?		

Stairways	Are the step sizes uniform?		
Stairways	Are the steps large enough to accommodate feet but small enough to eliminate unnecessary additional steps?		
Stairways	Are the risers closed so there is not open space in the riser?		
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?		
Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings of the stairwell?		
Stairways	Are the treads free from slopes in any direction?		
Stairways	Are there handrails on both sides of the stairs?		
Stairways	If there are switchback stair sets, is the inside handrail continuous?		
Restaurant Specific Features	Is there wait staff that brings your food to the table?		
Restaurant Specific Features	To pick up food from the counter, do they call names/numbers overhead?		
Restaurant Specific Features	To pick up food from the counter, do they use buzzer that vibrates and lights up?		
Restaurant Specific	Are menus available that provide pictures of each food		

Features	item?		
Restaurant Specific Features	Are menus available in Braille or electronic versions that can be read with screen reader?		
Restaurant Specific Features	Are menus available on paper?		
Restaurant Specific Features	Are menus located on the wall behind the register?		
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain background)		
Restaurant Specific Features	Is the lighting level in dining room and cashier appropriate?		
Restaurant Specific Features	Is the noise level in the dining room and cashier appropriate?		
Restaurant Specific Features	Is the food service aisle at least 36 inches wide along entire length?		
Restaurant Specific Features	Does the food service line that requires a hard turn to enter or exit be at least 42 inches wide?		
Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from the floor and no higher than 44 inches above the floor?		

Restaurant Specific Features	Can dispensers for napkins, straws, condiments, etc. be operated with one hand with a closed fist?		
Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or twisting of the wrist.		
Restaurant Specific Features	On request, can means be served in adaptive plates, bowls, cups, etc. provided by the diner?		
Restaurant Specific Features	Does the patron alert system provide signals through at least two sensory channels?		
Restaurant Specific Features	Can the lighting level at an individual diner's table be increased on request?		
Restaurant Specific Features	Is there an option for quieter seating?		
Restaurant Specific Features	Can prepackaged items be opened with one hand?		
Restaurant Specific Features	Can prepackaged items be opened without tight grip, pinch, and twisting?		

Appendix B: AR-B Database

This appendix includes the following 3 sections:

1. List of Restaurants Included in Study: A table that lists the 20 restaurants included in the study, as well as each one's location, phone number, and web site address.
2. Consumer Reviews: A listing of consumer reviews for a sample of 5 restaurants included in the study (Ian's Pizza, Qdoba Mexican Grill, Subway, Pizza Shuttle, and McDonald's).
3. Trained Rater Data: A listing of trained rater evaluations for a sample of the same 5 restaurants included in the study.

List of Restaurants Included in Study

AJ Bombers	Address: 1247 N Water St, Milwaukee, WI Phone: (414) 221-9999 Web Site: ajbombers.com
EE Sane	Address: 1806 N Farwell Ave, Milwaukee, WI Phone: (414) 224-8284 Web Site: thaicuisine.com
Panera Bread	Address: 600 E Ogden Ave, Milwaukee, WI Phone: (414) 224-0200 Web Site: panerabread.com
Cousin's Subs	Address: 2900 N Oakland Ave, Milwaukee, WI Phone: (414) 963-0177 Web Site: cousinssubs.com
Pizza Shuttle	Address: 1827 N Farwell Ave, Milwaukee, WI Phone: (414) 289-9993 Web Site: pizzashuttle.com
East Garden	Address: 3600 N Oakland Ave, Milwaukee, WI Phone: (414) 962-7460 Web Site: eastgardenrestaurant.com
Bel Air Cantina	Address: 1935 N Water St, Milwaukee, WI Phone: (414) 226-2245 Web Site: belaircantina.com
Oakland Gyros	Address: 2867 N Oakland Ave, Milwaukee, WI Phone: (414) 963-1393

Ian's Pizza	Address: 2035 E North Ave, Milwaukee, WI Phone: (414) 727-9200 Web Site: ianspizza.com
Noodle's & Co.	Address: 3121 N Oakland Ave, Milwaukee, WI Phone: (414) 962-9100 Web Site: noodles.com
Ma Fischer's	Address: 2214 N Farwell Ave, Milwaukee, WI Phone: (414) 271-7424 Web Site: mafischersrestaurant.com
The Dogg Haus	Address: 3116 N Downer Ave, Milwaukee, Wisconsin Phone: (414) 332-2810 Web Site: thedogghaus.com
Shahrazad	Address: 2847 N Oakland Ave, Milwaukee, WI Phone: (414) 964-5475 Web Site: shahrazadrestaurant.com
Benji's Deli	Address: 4156 N Oakland Ave, Milwaukee, WI Phone: (414) 332-7777 Web Site: benjisdeliandrestaurant.com
Pita Pit	Address: 2224 N Farwell Ave, Milwaukee, WI Phone: (414) 727-2720 Web Site: pitapitusa.com
McDonald's	Address: 1614 E North Ave, Milwaukee, WI Phone: (414) 276-0340 Web Site: mcdonalds.com
Qdoba Mexican Grill	Address: 2228 N Prospect Ave, Milwaukee, WI Phone: (414) 431-4300 Web Site: qdoba.com
Chubby's Cheesesteaks	Address: 2232 N Oakland Ave, Milwaukee, WI Phone: (414) 287-9999 Web Site: chubbyscheesesteaks.com
Five Guys Burgers and Fries	Address: 2907 N Oakland Ave, Milwaukee, WI Phone: (414) 964-5303 Web Site: fiveguys.com
Subway	Address: 1807 E Locust St, Milwaukee, WI Phone: (414) 963-6339 Web Site: subway.com

Restaurant: Ian's Pizza

Building element: Overall Accessibility

Rachum	The overall accessibility of the restaurant for people with vision disabilities is ok. Ordering is the easiest, but the atmosphere itself may be more difficult.	4
Jasonman24	I love Ian's pizza but accessibility for deaf and Hard of Hearing is pretty difficult here.	4
Mkeguy	Great food but not very deaf or communication friendly	4
Gigimarie	Overall, good experience and good food. Staff was friendly and answered questions.	4
hmmmsoup	None of the pizzas are labeled so you have to ask what each one is. Without being able to hear, I just had to pick without knowing what all the toppings were.	2

Building element: Routes

Rachum	The route through the ordering area is pretty straight-forward, because the ordering counter is right when you walk in. There is a rail along the ordering line as well. The route through the seating area is more difficult because it's a little crowded.	4
Mkeguy		5
Gigimarie	Place is pretty small. When you walk in, line for food is directly on right and the bathroom sign is in front towards the left. It's pretty easy to figure out where to go. It can get a little cramped though when busy.	4
lamkingtut	Once inside, there are rails that guide the route for a line to order pizza. A wide wheelchair may have trouble getting through. Rugs are loose and someone could trip on them.	3

Building element: Floor/Ground

Rachum	The floor is smooth with no steps anywhere.	5
Mkeguy		5
Gigimarie		4

Building element: Doorways

Mkeguy		5
Iamkingtut	Entrance door is very heavy and hard to open.	3

Building element: Restrooms

Rachum	Finding the restrooms is pretty easy because the restaurant is so small, although they are located right next to the door to the kitchen so this might be confusing. It's a single-stall restroom which is nice.	4
Mkeguy		5
Gigimarie	Bathroom was clean and easy to find. Standard sign.	4
Iamkingtut	Large stall with sturdy grab bars	4

Building element: Tables and Chairs

Rachum	It might be slightly difficult to find a spot because the dining area is so crowded, so it can be a little bit difficult to spot an open table.	4
Jasonman24	Tables and chairs were good sized and well lit for signed/ spoken conversations. Acoustics for the room leave something to be desired.	4
Mkeguy		5
hmmmsoup	Counter seating and tables. All placed close together and can be cramped.	3

Building element: Signage

Rachum	Signs are pretty easy to read, except for the menu sign behind the ordering counter.	4
Jasonman24	There are always specials for the pizzas here meaning the menu often changes. There are no signs indicating what kind of pizza is there and the only way to know is to either guess, or ask the staff. The problem is that there are giant glass panels in the way and you can really only point and try to understand what the server is saying the pizza is.	2
Mkeguy	Signage is a huge shortfall here. There are always different pizzas out so in order to know what's there, it is required to ask the person working. There are big glass panels that separate workers and guests so writing is near impossible. It is also hard to communicate orally because of the panels and the acoustics of the restaurant.	2
Gigimarie	This place has really artistic and unique signs, but not really accessible. All the signs are behind the counter with menu items and prices in different colors and fonts.	3

Building element: Stairways

Rachum	There are no stairs to worry about.	5
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Building element: Parking

Iamkingtut	Street parking in busy area	2
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Building element: Restaurant Features

Rachum	The nice thing about this place is that they're pretty used to people asking about the different kinds of pizza by the slice they have for that day because none of them are labeled. The noise level could potentially be an issue because the music makes it a bit difficult to hear someone in a conversation.	4
mkeguy	Lighting is always great for signed conversations. Tables are bigger as well, so it can accommodate a good sized group. Acoustics are not great, it can be difficult to hear sometimes, especially if it is busy. Great customer service but not being able to communicate	4

with them is frustrating

Gigimarie	This place has good lighting but can get loud, especially late at night. While the signage is poor for accessibility, all the pizza is out on the counter and everyone asks what the different flavors are, so you don't really have to see the signs.	4
Iamkingtut	Counter top to see food selection is pretty high	3
hmmmsoup	Order at counter and pay. They bring food to you. No buzzer, no name. They just remember who ordered what.	3

Restaurant: Qdoba Mexican Grill

Building element: Overall Accessibility

Rachum	Overall, Qdoba does tend to be a little bit visual when you're getting your food, but my experience there always goes smoothly.	5
Jasonman24	For people who struggle with Hearing, Qdoba can be a little rough. There is glass separating me from the people that work there and no way to write down orders. I relied on pointing to things to communicate what I needed. The room is also pretty loud and there isnt much to soften the sound, so having spoken conversations is hard.	3
turnitdownforwhat	Qdoba is pretty straight-forward because they don't have a very big menu and it's just kind of Qdoba.	5

Building element: Routes

Rachum	There is a lot of space to get around Qdoba. Due to the set-up of the tables, I found myself having to maneuver a little bit to get around.	4
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Building element: Floor/Ground

Rachum	The floor inside is very smooth. The sidewalk and parking lot outside may be a little bit rough.	4
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Jasonman24 4

Building element: Doorways

Jasonman24 4

Building element: Restrooms

Rachum The location of the restrooms is pretty intuitive- they're down a hallway to the right of the ordering counter. 5

Jasonman24 4

Building element: Tables and Chairs

Rachum It's pretty easy to spot a place to sit because there are a lot of tables, although there isn't great contrast between the floor and tables- it's all kind of gray. There is a good amount of space between tables as well. 4

Jasonman24 Could use bigger tables for better conversations 3

Building element: Signage

Rachum The Qdoba sign on the side of the building is very easy to read. I wasn't able to see the menu signs because they were too far away behind the register. The bathroom signs were pretty standard. 4

Jasonman24 Food signage is behind the counter so ordering something if Deaf or Hard of Hearing is hard because you can't point to things. They have paper menus but the options are always on it, so it gets confusing sometimes. 2

Building element: Stairways

Rachum No stairs. 5

Building element: Ramps

Joeyjuju The only ramp goes up the curb from the parking lot to the sidewalk in front of the entrance, and it's a pretty bad one. 3

Building element: Restaurant Features

Rachum It can be a little bit hard to hear the people behind the counter when you're ordering, which can make it hard to tell them what you want on your food if you can't see what all the options are. The counter with the napkins and other things is kind of crowded, so it can be a little bit tricky to find what you want. You also have to fill your own soda with the fountain drink machine. 4

Consumer Reviews

Restaurant: SUBWAY® Restaurants

Building element: Overall Accessibility

Rachum	The overall accessibility for people with vision disabilities is ok.	4
DaPunkyQB	Was not able to enter this restaurant, there were stairs leading to the front door and no visible handicap entrance. I was not going to caring my wheelchair up stairs, just to eat.	1
Jasonman24	This is not my favorite Subway because the owners are sometimes unfriendly.	4
turnitdownforwhat	This subway is pretty nice because it's pretty quiet. I never have problems here.	5

Building element: Routes

Rachum	The route through the restaurant is pretty straight-forward, as there is just one straight aisle leading from the entrance, past the ordering counter, and then to the restrooms at the back of the restaurant.	5
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Building element: Floor/Ground

Rachum	The floor is smooth. The only tricky thing is that there are steps leading to the front entrance which have sort of a slant to them and the steps are different sizes.	3
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Building element: Restrooms

Rachum	Restrooms are pretty straight-forward, located at the back of the restaurant.	4
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Building element: Tables and Chairs

Rachum	The seating is spaced out pretty well.	5
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Jasonman24 Tables are a good size for signed conversations. When conversing for a hard of hearing person, it is fairly good but can be a struggle with background noise when busy. Lighting is always good here. 4

Building element: Signage

Rachum I wasn't able to see the menu because it was behind the counter, but you can look it up online before you go. Bathroom signs are pretty standard. 4

Jasonman24 Sometimes hard to communicate with staff because of the glass. However there are signs all over the place and staff understands when I point to which items I want on my sandwich. 4

Building element: Stairways

Rachum There are a few steps going up to the front entrance that may be a little bit tricky because they are slightly slanted downward and aren't all the same size. 2

Building element: Restaurant Features

Rachum When you're ordering a sub and they ask you what toppings you want, it can be hard to tell what your options are, as they're all laid out for you to choose from. I had the same problem with choosing a type of bread, sauces, and cookies. The staff there is pretty helpful though. You don't have to sign your receipt, which is always convenient. 3

Jasonman24 Lighting is great here for conversations in sign language 5

Restaurant: Pizza Shuttle

Building element: Overall Accessibility

Rachum	The overall accessibility for people with vision disabilities is ok.	3
Jasonman24	This is a great place to eat, but not so great if you are Deaf or Hard of Hearing. Often unable to hear or see workers behind the counters because display stands block them. Workers can be rude and so can customers waiting to order. Orders are also called out over a microphone and next to impossible to hear. I have asked workers to wave to me when it is ready but most of the time they forget.	3
bones365	I would say overall the restaurant is pretty accessible but could use some upgrades.. (automatic doors throughout the whole place would be nice. The employees are very helpful and attentive i must say. also the food is great and the prices are reasonable.	3
turnitdownforwhat	It's a little hard to find where everything is, like the silverware and stuff, but it isn't bad.	4

Building element: Routes

Rachum	Routes into and around the restaurant can be a little bit confusing. Since there is a parking lot beneath the restaurant itself, you need to go up a set of stairs to get to the entrance. It's pretty obvious where to order when you walk in because you walk right past the counter. The location of the bathroom is a bit confusing because you walk down a long tucked-back hallways that has a lot of equipment and other materials stored there, so you're not sure if you accidentally walked into a storage area. Tables are a little bit crowded together in some places, so there isn't always a direct route through them.	3
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Building element: Floor/Ground

bones365		4
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Building element: Doorways

bones365 the doorways were wide enough for me to get through so i deemed them accessible. 2

Building element: Restrooms

Rachum The restroom itself is fine, but the route to get there is a little bit unclear as mentioned earlier, and it's hard to tell which one is the men's and which one is the women's. 4

Building element: Tables and Chairs

Jasonman24 Tables and chairs are fine with adequate lighting for signed or spoken conversation. Background noise is terrible no matter what time you come here. Spoken conversations are difficult. 3

bones365 it very spacious and accessible i had no problem getting my knees underneath the table. 4

Building element: Signage

Rachum The bathroom signs are really confusing because they're very colorful, so it's hard to tell which is which. I wasn't able to see the menu signs, but you can find it online. 3

Jasonman24 Signage and menus are clear and straightforward. 5

bones365 could be more visual. 3

Building element: Stairways

Rachum The stairs are easy to use and have railing the whole way. 5

Building element: Ramps

bones365 the ramp is accessible but very steep. 2

Building element: Elevators

bones365 it's accessible 4

turnitdownforwhat You can use the the elevator if you want, it's pretty cool. 5

Building element: Parking

bones365 it's a busy street so parking is what it is. i personally needed help getting from my vehicle to the facility. 2

Building element: Restaurant Features

Rachum Ordering can be a little bit tricky because it's hard to see the menu and there are some things like individual slices or pizza that are in cases to order. In general, there is a lot going on visually. I wasn't sure at first where to pick up my food when they called my number because it's a certain spot at a long counter. The counter that has the silverware, plates, and other extra things is slightly hidden. It's also a little bit confusing where and how to dispose of your garbage, because there are a bunch of bins on shelves down the hallway that leads to the bathrooms. Some of the bins are labeled and others aren't. 3

Restaurant: McDonald's

Building element: Overall Accessibility

Rachum The nice thing about McDonald's is that they're all pretty similar. The one at this location is pretty standard, and is generally pretty accessible for people with vision disabilities. 4

Jasonman24 I generally do not prefer McDonald's but I especially do not like this one. They always tend to mix up my order and its always hard to hear based on the set up they have here. 3

bones365 fgf 4

Building element: Routes

Rachum The routes throughout the restaurant are very wide throughout the whole restaurant. 5

Jasonman24 The close proximity to the front door when ordering seems to cause a weird sound problem. 3

bones365 5

Building element: Floor/Ground

Rachum The floor is very flat, there isn't anything in the way that you would run into or trip over. 5

bones365 5

Building element: Doorways

bones365 5

Building element: Restrooms

Rachum	The restrooms are very standard. Their location could be a little more obvious, as they're tucked in along on of the walls in the seating area. The restroom signs are pretty standard as well, so it's easy to tell which is which.	4
bones365		4

Building element: Tables and Chairs

Rachum	The seating area is very big and it's easy to find somewhere to sit.	5
Jasonman24	Acoustics are not great in the restaurant and it is super hard to hear other peoples comments with the amount of background noise. Tables are decent	3
bones365	very accessible!	5

Building element: Signage

Rachum	I wasn't able to see the menu signs because they were too far away above the register. It's easy to find the menu online though.	4
Jasonman24	McDonald's always seems to have good signage because it is a franchise and probably required to be up to industry standard.	5
bones365	Their signage is Great!	5

Building element: Stairways

Rachum	No stairs.	5
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Building element: Handrails

bones365		5
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Building element: Parking

bones365

5

Building element: Restaurant Features

Rachum You get your food right away when you order it, so it's pretty straight-forward if it isn't too busy. Like other McDonald's, you have to fill your own drinks from the fountain machine.

5

Trained Rater Data

Restaurant: Ian's Pizza

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?		Bathroom & Garbage yes, menus no
Signage	Are signs in a non-glare finish?	M	Chalkboard, bathroom
Signage	Are pictograms easy to see and understand?	Y	
Signage	Is the size of the text on the signs functional?	Y	Font-no
Signage	Is there Braille on the signs?	N	
Signage	Are Braille signs on the latch side of the door?	N	
Restrooms	Is there tactile signage identifying accessible	Y	
Restrooms	Is the bathroom door automatic?	N	Twist and push manual
Restrooms	Is the restroom open to the public (does not require a key or passcode to open)?	Y	
Restrooms	Is the bathroom door width 32" or greater?	Y	36"
Restrooms	Is stall door operable with a closed fist both	Y	
Restrooms	Is the stall door width 32" or greater?	N/A	
Restrooms	Is the accessible stall at least 5'X5'?	Y	85" x 86"
Restrooms	Are toilets positioned with wall to the rear and	Y	
Restrooms	Are toilets 17-19" high?	Y	18"
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?	Y	
Restrooms	Is there a back rest for the toilet?	Y	
Restrooms	Is it automatic flush? If it's manual, where is it	N	Open side
Restrooms	Can toilet be flushed with a closed fist?	Y	
Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?		
Restrooms	Is the toilet paper easily reached?	Y	one of the two can be
Restrooms	Is the bottom edge of the mirror 40" or lower?	Y	

Restrooms	Is the sink height 34" or lower?	Y	33"
Restrooms	Is the clear depth under the sink is 8" or	Y	11"
Restrooms	Can faucets be operated with one closed fist?	Y	
Restrooms	Are soap, other dispensers and hand dryers	N	Not in wheelchair or short arms
Restrooms	If the faucets are manual, do they allow a water flow for at least 10 seconds after	Y	
Restrooms	Are exposed pipe under sink insulated, shielded from contact and without sharp edges?	N	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively	N	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door	N/A	
Doorways	Is there an entranceway on an accessible route? (Main Entrance)	N	
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances?	N/A	

Doorways	Is the clear width of the doorway 32" or greater? (Main Entrance)	N	31"
Doorways	Is the doorknob height 48" or lower? (Main	Y	44" inside 37" outside
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Main Entrance)	Y	
Doorways	Can the door be opened with a closed fist and little physical effort? (Main Entrance)	N	heavy
Doorways	Does it take at least 3 seconds for the door to close? (Main Entrance)	Y	
Doorways	Are doors automatic? (Main Entrance)	N	
Doorways	If applicable, can a person get from the actuator to the automatic door before it	N/A	

Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Accessible Entrance)	N/A	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door	N/A	
Doorways	Is there an entranceway on an accessible route? (Accessible Entrance)	N/A	
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances?	N/A	
Doorways	Is the clear width of the doorway 32" or greater? (Accessible Entrance)	N/A	
Doorways	Is the doorknob height 48" or lower?	N/A	
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Accessible Entrance)	N/A	
Doorways	Can the door be opened with a closed fist and little physical effort? (Accessible Entrance)	N/A	
Doorways	Does it take at least 3 seconds for the door to close? (Accessible Entrance)	N/A	
Doorways	Are doors automatic? (Accessible	N/A	
Doorways	If applicable, can a person get from the actuator to the automatic door before it	N/A	
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all	M	Slippery when wet
Floor/Ground	If the accessible route is across a grating, are the long dimension of the grating openings at right angles to the direction of travel and the narrower dimension is less than 1/2 inch?	N	
Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without getting		
Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?	Y	
Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?	Y	

Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a firm or no	N	Rugs can be tripped on
Routes	If the accessible route meets a curb, is there a curb cut that complies with ADA-ABA	N/A	
Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the surface?	Y	36"
Routes	If the accessible route makes a U-turn, is it at least 42 inches wide approaching the turn, and	N/A	
Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or less?	Y	
Routes	Is the accessible route free from obstacles?	M	Handrails make it difficult. Is the route even accessible?
Routes	Does the accessible path signage indicate key landmarks and features to which it leads?	N	
Tables and	Is there adequate toe (horizontal) clearance	Y	
Tables and	Is there adequate knee (vertical) clearance at	Y	
Tables and	Is accessible seating dispersed throughout	M	Small area to move in
Tables and	Is wheelchair seating out of the pathway?	N	
Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the accessible	N	
Tables and Chairs	In fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?	N/A	
Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?	N/A	
Elevators	Where is the elevator located?	N/A	
Elevators	Allow wheelchairs users to access call buttons and keypads?	N/A	
Elevators	Is there an accessible path to the call buttons, elevator door and paths into and out of the	N/A	
Elevators	Is the auditory signal directional and easy to hear but not too loud?	N/A	
Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is	N/A	
Elevators	Does the auditory or visual signal provide enough time to get into the elevator that	N/A	

Elevators	Is there signage on each side of the elevator, including Braille and tactile letters?	N/A
Elevators	Are buttons to higher floors above buttons to	N/A
Elevators	Are the buttons large enough that they could be easily pressed without a finger to press	N/A
Elevators	Are the buttons raised from the surrounding	N/A
Elevators	Do call buttons provide feedback to indicate the call is registered?	N/A
Elevators	Are the handrails on all non-door walls of the	N/A
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit the elevator?	N/A
Handrails	What feature are the handrails a part of?	In line
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 1)	N/A
Handrails	If there is a landing, is the inside handrail continuous? (Feature 1)	N/A
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 1)	N/A
Handrails	Does the handrail end in a curved fashion?	N/A
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	Y
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 1)	Y
Handrails	Are the handrails sturdy the whole length of the run? (Feature 1)	Y
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive	M
Handrails	What feature are the handrails a part of?	N/A
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 2)	N/A
Handrails	If there is a landing, is the inside handrail continuous? (Feature 2)	N/A
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 2)	N/A
Handrails	Does the handrail end in a curved fashion?	N/A
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	N/A
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 2)	N/A
Handrails	Are the handrails sturdy the whole length of	N/A

Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom? (Feature 2)	N/A
Parking	Is there are parking lot or street parking?	Street Parking
Parking	Are accessible parking spaces marked?	N/A
Parking	Are the accessible parking signs easily	N/A
Parking	Is there at least 1 accessible parking space for every 20 spaces in the lot?	N/A

Parking	Is there at least 1 van accessible	N/A	
Parking	Do any of the spaces have access aisles? (all, most some, none?)	N/A	
Parking	Are access aisles part of the accessible route and closest to the accessible entrance?	N/A	
Parking	Are parking spaces level?	N/A	
Ramps	Where is the ramp located?	N/A	
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?	N/A	
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes	N/A	
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when	N/A	
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is perpendicular to the usual	N/A	
Ramps	Is the slope of the ramp 4.8 degrees	N/A	
Ramps	Is the cross slope of the ramp 1.1	N/A	
Ramps	All ramp runs are no longer than 30'.	N/A	
Ramps	Are there handrails on both sides?	N/A	
Ramps	Is there a large enough landing on the top and bottom of the ramp, and if applicable, where it	N/A	
Stairways	Where are the stairs located?	N/A	
Stairways	Are the step sizes uniform?	N/A	
Stairways	Accommodate feet but small enough to eliminate unnecessary additional steps?	N/A	

Stairways	Are the risers closed so there is not open	N/A	
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?	N/A	
Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings of the stairwell?	N/A	
Stairways	Are the treads free from slopes in any	N/A	
Stairways	Are there handrails on both sides of	N/A	
Stairways	If there are switchback stair sets, is the inside handrail continuous?	N/A	
Restaurant Specific	Is there wait staff that brings your food to the table?	Y	
Restaurant Specific	Are menus available that provide pictures of each food item?	N	
Restaurant Specific	Are menus available in Braille or electronic versions that can be read with screen reader?	N	

Restaurant Specific	Are menus available on paper?	Y	
Restaurant Specific	Does the primary means of reading the menu not require viewing a sign behind the register?	N	
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain background)	N	
Restaurant Specific	Is the lighting level in dining room and cashier appropriate?	Y	
Restaurant Specific	Is the noise level in the dining room and cashier appropriate?	M	Prior to 6:00, got louder at dinner
Restaurant Specific	Is the food service aisle at least 36 inches wide along entire length?	Y	
Restaurant Specific	Does the food service line that requires a hard turn to enter or exit be at least 42 inches	Y	
Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from the floor and no higher	Y	

Restaurant Specific	Can dispensers for napkins, straws, condiments, etc. be operated with one hand	Y	
Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or twisting of the wrist.	N/A	
Restaurant Specific	On request, can means be served in adaptive plates, bowls, cups, etc. provided by the diner?	N	
Restaurant Specific	Does the patron alert system provide signals through at least two sensory channels?	N/A	
Restaurant Specific	Can the lighting level at an individual diner's table be increased on request?	N	
Restaurant Specific	Is there an option for quieter seating?	N	
Restaurant Specific	Can prepackaged items be opened with one hand?	N/A	
Restaurant	Can prepackaged items be opened	N/A	

Restaurant: McDonalds

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?	Y	
Signage	Are signs in a non-glare finish?	Y	
Signage	Are pictograms easy to see and	Y	
Signage	Is the size of the text on the	Y	
Signage	Is there Braille on the signs?	N	
Signage	Are Braille signs on the latch	n/a	
Restrooms	Is there tactile signage identifying	N	
Restrooms	Is the bathroom door automatic?	N	
Restrooms	Is the restroom open to the public (does not require a key or passcode to	Y	
Restrooms	Is the bathroom door width 32" or	Y	32"
Restrooms	Is stall door operable with a closed fist	Y	
Restrooms	Is the stall door width 32" or greater?	Y	36"
Restrooms	Is the accessible stall at least 5'X5'?	Y	5 ft x 5.3 ft
Restrooms	Are toilets positioned with wall to the	Y	
Restrooms	Are toilets 17-19" high?	Y	
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?	Y	
Restrooms	Is there a back rest for the toilet?	N	
Restrooms	Is it automatic flush? If it's manual,	N	right side by wall
Restrooms	Can toilet be flushed with a closed fist?	Y	
Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?	Y	
Restrooms	Is the toilet paper easily reached?	Y	
Restrooms	Is the bottom edge of the mirror 40" or	Y	
Restrooms	Is the sink height 34" or lower?	Y	33"

Restrooms	Is the clear depth under the sink is 8" or	N	0"
Restrooms	Can faucets be operated with one	Y	
Restrooms	Are soap, other dispensers and hand	Y	
Restrooms	If the faucets are manual, do they allow a water flow for at least 10 seconds	Y	
Restrooms	Are exposed pipe under sink insulated, shielded from contact	Y	Cabinets under sink
Doorways	Is the door actuator associated with the door in proximity with tactile signage	n/a	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the	Y	
Doorways	Is there an entranceway on an accessible route? (Main Entrance)	Y	
Doorways	Do all inaccessible entrances have signage indicating location of accessible	n/a	
Doorways	Is the clear width of the doorway 32" or greater? (Main Entrance)	Y	36"
Doorways	Is the doorknob height 48" or lower?	Y	44"
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it?	N	1/4-1/2"
Doorways	Can the door be opened with a closed fist and little physical effort? (Main	Y	
Doorways	Does it take at least 3 seconds for the door to close? (Main Entrance)	Y	
Doorways	Are doors automatic? (Main Entrance)	N	
Doorways	If applicable, can a person get from the actuator to the automatic door before	n/a	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Accessible	n/a	

Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the	n/a	
Doorways	Is there an entranceway on an accessible route? (Accessible Entrance)	n/a	
Doorways	Do all inaccessible entrances have signage indicating location of accessible	n/a	
Doorways	Is the clear width of the doorway 32" or greater? (Accessible Entrance)	n/a	
Doorways	Is the doorknob height 48" or lower?	n/a	
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it?	n/a	
Doorways	Can the door be opened with a closed fist and little physical effort? (Accessible)	n/a	
Doorways	Does it take at least 3 seconds for the door to close? (Accessible Entrance)	n/a	
Doorways	Are doors automatic? (Accessible)	n/a	
Doorways	If applicable, can a person get from the actuator to the automatic door before	n/a	
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all seasons	M	May not be slip resistant when wet-no mats
Floor/Ground	If the accessible route is across a grating, are the long dimension of the grating openings at right angles to the direction of travel and the narrower	n/a	
Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without	M	floor tile is textured
Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?	Y	

Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?	Y	
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Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a	n/a	
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Routes	If the accessible route meets a curb, is there a curb cut that complies with ADA-	Y	
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Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the	Y	
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Routes	If the accessible route makes a U-turn, is it at least 42 inches wide approaching	n/a	
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Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or	Y	
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Routes	Is the accessible route free from	Y	
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Routes	Does the accessible path signage indicate key landmarks and features to	Y	
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Tables and Chairs	Is there adequate toe (horizontal)	Y	
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Tables and Chairs	Is there adequate knee (vertical)	Y	
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Tables and Chairs	Is accessible seating dispersed	Y	
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Tables and Chairs	Is wheelchair seating out of the	Y	
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Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the	Y	
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Tables and Chairs	In fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?	Y	
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Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?	Y	
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Elevators	Where is the elevator located?	n/a	
Elevators	to allow wheelchairs users to access call buttons and keypads?	n/a	
Elevators	Is there an accessible path to the call buttons, elevator door and paths into	n/a	
Elevators	Is the auditory signal directional and easy to hear but not too loud?	n/a	
Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what	n/a	
Elevators	Does the auditory or visual signal provide enough time to get into the	n/a	
Elevators	Is there signage on each side of the elevator, including Braille and tactile	n/a	
Elevators	Are buttons to higher floors above	n/a	
Elevators	Are the buttons large enough that they could be easily pressed without a finger	n/a	
Elevators	Are the buttons raised from the	n/a	

Elevators	Do call buttons provide feedback to indicate the call is registered?	n/a	
Elevators	Are the handrails on all non-door walls	n/a	
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit	n/a	
Handrails	What feature are the handrails a	n/a	
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 1)	n/a	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 1)	n/a	

Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 1)	n/a	
Handrails	Does the handrail end in a curved	n/a	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the	n/a	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail?	n/a	
Handrails	Are the handrails sturdy the whole length of the run? (Feature 1)	n/a	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive	n/a	
Handrails	What feature are the handrails a part	n/a	
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 2)	n/a	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 2)	n/a	
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 2)	n/a	
Handrails	Does the handrail end in a curved	n/a	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the	n/a	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail?	n/a	
Handrails	Are the handrails sturdy the whole	n/a	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom?	n/a	

Parking	Is there are parking lot or street	Parking lot	
Parking	Are accessible parking spaces	Y	
Parking	Are the accessible parking signs	Y	
Parking	Is there at least 1 accessible parking space for every 20 spaces in the lot?	Y	2 accessible spaces for about 30 parking spaces total
Parking	Is there at least 1 van accessible parking	N	
Parking	Do any of the spaces have access aisles? (all, most some, none?)	Y	Between accessible spots
Parking	Are access aisles part of the accessible route and closest to the accessible	Y	
Parking	Are parking spaces level?	Y	
Ramps			
Ramps	Where is the ramp located?	n/a	
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?	n/a	
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes	n/a	
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when there	n/a	
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is	n/a	
Ramps	Is the slope of the ramp 4.8 degrees or	n/a	
Ramps	Is the cross slope of the ramp 1.1	n/a	
Ramps	All ramp runs are no longer than 30'.	n/a	
Ramps	Are there handrails on both sides?	n/a	
Ramps	Is there a large enough landing on the top and bottom of the ramp, and if	n/a	
Stairways			
Stairways	Where are the stairs located?	n/a	
Stairways	Are the step sizes uniform?	n/a	

Stairways	Accommodate feet but small enough to eliminate unnecessary additional steps?	n/a	
Stairways	Are the risers closed so there is not	n/a	
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?	n/a	
Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings	n/a	
Stairways	Are the treads free from slopes in any	n/a	
Stairways	Are there handrails on both sides of the	n/a	
Stairways	If there are switchback stair sets, is the inside handrail continuous?	n/a	
Restaurant Specific Features	Is there wait staff that brings your food to the table?	N	
Restaurant Specific Features	Are menus available that provide pictures of each food item?	Y	
Restaurant Specific Features	Are menus available in Braille or electronic versions that can be read	N	
Restaurant Specific Features	Are menus available on paper?	M	really small print
Restaurant Specific Features	Does the primary means of reading the menu not require viewing a sign behind	N	Hard to read, very busy
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain	N	
Restaurant Specific Features	Is the lighting level in dining room and cashier appropriate?	Y	
Restaurant Specific Features	Is the noise level in the dining room and cashier appropriate?	Y	
Restaurant Specific Features	Is the food service aisle at least 36 inches wide along entire length?	Y	
Restaurant Specific Features	Does the food service line that requires a hard turn to enter or exit be at least	n/a	

Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from	Y	
Restaurant Specific Features	Can dispensers for napkins, straws, condiments, etc. be operated with one	Y	
Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or	M	small salt packets
Restaurant Specific Features	On request, can means be served in adaptive plates, bowls, cups, etc.	Y	
Restaurant Specific Features	Does the patron alert system provide signals through at least two sensory	n/a	
Restaurant Specific Features	Can the lighting level at an individual diner's table be increased on request?	N	
Restaurant Specific Features	Is there an option for quieter seating?	Y	
Restaurant Specific Features	Can prepackaged items be opened with one hand?	Y	
Restaurant Specific	Can prepackaged items be opened	Y	

Restaurant: Pizza Shuttle

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?	Maybe	Exit: Yellow on red and black. Men's Room: Blue on Yellow. Women's Room: Pink on Green. Trash: Black on yellow.
Signage	Are signs in a non-glare finish?	Yes	
Signage	Are pictograms easy to see and	N/A	
Signage	Is the size of the text on the signs functional?	Maybe	The text on the exit sign is a little small, but the rest of the signs have functional text size.
Signage	Is there Braille on the signs?	No	
Signage	Are Braille signs on the latch side of the	N/A	
Restrooms	Is there tactile signage identifying	No	
Restrooms	Is the bathroom door automatic?	No	
Restrooms	Is the restroom open to the public (does not require a key or passcode to open)?	Yes	
Restrooms	Is the bathroom door width 32" or greater?	Yes	32"
Restrooms	Is stall door operable with a closed fist both	Yes	
Restrooms	Is the stall door width 32" or greater?	N/A	
Restrooms	Is the accessible stall at least 5'X5'?	Yes	
Restrooms	Are toilets positioned with wall to the rear	Yes	
Restrooms	Are toilets 17-19" high?	Yes	
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?	Yes	
Restrooms	Is there a back rest for the toilet?	Yes	
Restrooms	Is it automatic flush? If it's manual, where is	No	Left side
Restrooms	Can toilet be flushed with a closed fist?	Yes	
Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?	Yes	

Restrooms	Is the toilet paper easily reached?	Maybe	It's a little bit low.
Restrooms	Is the bottom edge of the mirror 40" or	No	42"
Restrooms	Is the sink height 34" or lower?	No	35"
Restrooms	Is the clear depth under the sink is 8" or	Yes	9"
Restrooms	Can faucets be operated with one closed	Yes	It's automatic
Restrooms	Are soap, other dispensers and hand dryers	Yes	
Restrooms	If the faucets are manual, do they allow a water flow for at least 10	N/A	
Restrooms	Are exposed pipe under sink insulated, shielded from contact and without sharp edges?	Yes	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and	N/A	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door	Yes	

Doorways	Is there an entranceway on an accessible route? (Main Entrance)	Yes	
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances?	N/A	
Doorways	Is the clear width of the doorway 32" or greater? (Main Entrance)	Yes	33"
Doorways	Is the doorknob height 48" or lower? (Main	Yes	38"
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Main	No	There is a threshold about 1/4 inch high.
Doorways	Can the door be opened with a closed fist and little physical effort? (Main Entrance)	Maybe	The door is a little heavy.
Doorways	Does it take at least 3 seconds for the door to close? (Main Entrance)	Yes	
Doorways	Are doors automatic? (Main Entrance)	No	
Doorways	If applicable, can a person get from the actuator to the automatic door before it	N/A	

Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Accessible Entrance)	N/A	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door	N/A	
Doorways	Is there an entranceway on an accessible route? (Accessible Entrance)	N/A	
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances?	N/A	
Doorways	Is the clear width of the doorway 32" or greater? (Accessible Entrance)	N/A	
Doorways	Is the doorknob height 48" or lower?	N/A	
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Accessible	N/A	
Doorways	Can the door be opened with a closed fist and little physical effort? (Accessible	N/A	
Doorways	Does it take at least 3 seconds for the door to close? (Accessible Entrance)	N/A	
Doorways	Are doors automatic? (Accessible Entrance)	N/A	
Doorways	If applicable, can a person get from the actuator to the automatic door before it	N/A	
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all seasons including when	Maybe	The floor would not be slip-resistant if it were wet.
Floor/Ground	If the accessible route is across a grating, are the long dimension of the grating openings at right angles to the direction of travel and the narrower dimension is less	N/A	
Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without getting	Yes	

Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?	No	There is a slight slope from the sidewalk to the elevator/parking lot area.
Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?	Maybe	The restaurant is located on the second level, which requires taking either stairs or an elevator.
Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a firm or no padding?	Maybe	There are rugs in the food ordering area that aren't attached to the floor but are heavy.
Routes	If the accessible route meets a curb, is there a curb cut that complies with ADA-ABA	N/A	
Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the surface?	Yes	
Routes	If the accessible route makes a U-turn, is it at least 42 inches wide approaching the	N/A	
Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or less?	Yes	
Routes	Is the accessible route free from obstacles?	No	The route to the restroom has several things in the
Routes	Does the accessible path signage indicate key landmarks and	No	
Tables and	Is there adequate toe (horizontal)	Yes	
Tables and	Is there adequate knee (vertical)	Yes	
Tables and	Is accessible seating dispersed	Yes	
Tables and	Is wheelchair seating out of the	Yes	
Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the	Yes	
Tables and Chairs	In fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?	No	16"
Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?	Yes	

Elevators	Where is the elevator located?		The elevator is located behind the stairs, just off of the parking lot.
Elevators	Allow wheelchairs users to access call buttons and keypads?	Yes	
Elevators	Is there an accessible path to the call buttons, elevator door and paths into and	Yes	
Elevators	Is the auditory signal directional and easy to hear but not too loud?	N/A	

Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is	No	
Elevators	Does the auditory or visual signal provide enough time to get into the elevator that	N/A	
Elevators	Is there signage on each side of the elevator, including Braille and tactile letters?	Maybe	There is Braille on the elevator buttons, but no signs indicating level.
Elevators	Are buttons to higher floors above buttons	Yes	
Elevators	Are the buttons large enough that they could be easily pressed without a finger to	Yes	
Elevators	Are the buttons raised from the	Yes	
Elevators	Do call buttons provide feedback to indicate the call is registered?	No	
Elevators	Are the handrails on all non-door walls of	No	
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit the elevator?	Yes	
Handrails	What feature are the handrails a part of? (Feature 1)		Handrails are part of the stairway leading to the entrance.
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 1)	Yes	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 1)	Yes	

Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 1)	No	
Handrails	Does the handrail end in a curved fashion?	Yes	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	Yes	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 1)	Yes	
Handrails	Are the handrails sturdy the whole length of the run? (Feature 1)	Yes	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive	Maybe	The handrails are rounded, but covered in garland in the winter.
Handrails	What feature are the handrails a part of?	N/A	
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 2)	N/A	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 2)	N/A	
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 2)	N/A	
Handrails	Does the handrail end in a curved fashion?	N/A	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	N/A	

Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 2)	N/A	
Handrails	Are the handrails sturdy the whole length of	N/A	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom?	N/A	

Parking	Is there are parking lot or street parking?		Parking lot
Parking	Are accessible parking spaces marked?	Yes	
Parking	Are the accessible parking signs easily	Yes	
Parking	Is there at least 1 accessible parking space for every 20 spaces in the lot?	Yes	
Parking	Is there at least 1 van accessible parking	No	
Parking	Do any of the spaces have access aisles? (all, most some, none?)	Yes	
Parking	Are access aisles part of the accessible route and closest to the accessible	Yes	
Parking	Are parking spaces level?	No	The surface is cracked and
Ramps	Where is the ramp located?	N/A	
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?	N/A	
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes directions?	N/A	
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when there is	N/A	
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is perpendicular	N/A	
Ramps	Is the slope of the ramp 4.8 degrees or	N/A	
Ramps	Is the cross slope of the ramp 1.1 degrees	N/A	
Ramps	All ramp runs are no longer than 30'.	N/A	
Ramps	Are there handrails on both sides?	N/A	
Ramps	Is there a large enough landing on the top and bottom of the ramp, and if applicable,	N/A	

Stairways	Where are the stairs located?		In the front of the restaurant leading from the ground level to the second floor where the entrance is
Stairways	Are the step sizes uniform?	Yes	
Stairways	Accommodate feet but small enough to eliminate unnecessary additional steps?	Yes	
Stairways	Are the risers closed so there is not open	No	
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?	Yes	
Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings of the stairwell?	Yes	Stairs are cement with a lot of salt.
Stairways	Are the treads free from slopes in any	Yes	
Stairways	Are there handrails on both sides of the	Yes	
Stairways	If there are switchback stair sets, is the inside handrail continuous?	Yes	
Restaurant Specific	Is there wait staff that brings your food to the table?	No	
Restaurant Specific	Are menus available that provide pictures of each food item?	Maybe	Pictures are available for some of the food items.
Restaurant Specific	Are menus available in Braille or electronic versions that can be read with screen	Yes	An electronic version is available online.
Restaurant Specific	Are menus available on paper?	Yes	
Restaurant Specific	Does the primary means of reading the menu not require viewing a sign behind the	Maybe	The ice cream menu is located on the wall.
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain background)	Yes	
Restaurant Specific	Is the lighting level in dining room and cashier appropriate?	Yes	
Restaurant Specific	Is the noise level in the dining room and cashier appropriate?	Yes	
Restaurant Specific	Is the food service aisle at least 36 inches wide along entire length?	Yes	

Restaurant Specific	Does the food service line that requires a hard turn to enter or exit be at least 42	Yes	
Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from the floor and no	No	The silverware is very high.
Restaurant Specific	Can dispensers for napkins, straws, condiments, etc. be operated with one hand	Yes	There are large pump bottles.
Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or twisting of	Yes	
Restaurant Specific	On request, can means be served in adaptive plates, bowls, cups, etc. provided	Yes	
Restaurant Specific	Does the patron alert system provide signals through at least two sensory	No	They call numbers overhead when your order is ready.
Restaurant Specific	Can the lighting level at an individual diner's table be increased on request?	No	
Restaurant Specific	Is there an option for quieter seating?	No	

Restaurant Specific	Can prepackaged items be opened with one hand?	Maybe	Bags of chips
Restaurant	Can prepackaged items be opened without	No	Bags of chips.

Restaurant: Qdoba

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?	M	"Order here" grey on black. Bathroom white on black
Signage	Are signs in a non-glare finish?	N	laminated
Signage	Are pictograms easy to see and	Y	
Signage	Is the size of the text on the signs	Y	
Signage	Is there Braille on the signs?	N	
Signage	Are Braille signs on the latch side of the	N/A	
Restrooms	Is there tactile signage identifying	N	
Restrooms	Is the bathroom door automatic?	N	
Restrooms	Is the restroom open to the public (does not require a key or passcode to open)?	Y	
Restrooms	Is the bathroom door width 32" or	Y	33"
Restrooms	Is stall door operable with a closed fist both inside and out?	N	Difficult to slide lever without pushing door open
Restrooms	Is the stall door width 32" or greater?	Y	34"
Restrooms	Is the accessible stall at least 5'X5'?	Y	5' x 5'
Restrooms	Are toilets positioned with wall to the rear	Y	
Restrooms	Are toilets 17-19" high?	Y	
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?	Y	
Restrooms	Is there a back rest for the toilet?	Y	
Restrooms	Is it automatic flush? If it's manual, where	N	Front Left
Restrooms	Can toilet be flushed with a closed fist?	Y	
Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?	Y	
Restrooms	Is the toilet paper easily reached?	Y	
Restrooms	Is the bottom edge of the mirror 40" or	Y	40"
Restrooms	Is the sink height 34" or lower?	Y	32"
Restrooms	Is the clear depth under the sink is 8" or	Y	8"

Restrooms	Can faucets be operated with one closed	Y	
Restrooms	Are soap, other dispensers and hand	Y	
Restrooms	If the faucets are manual, do they allow a water flow for at least 10 seconds after	Y	
Restrooms	Are exposed pipe under sink insulated, shielded from contact	Y	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and	N	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the	Y	
Doorways	Is there an entranceway on an accessible route? (Main Entrance)	Y	

Doorways	Do all inaccessible entrances have signage indicating location of accessible	N	
Doorways	Is the clear width of the doorway 32" or greater? (Main Entrance)	Y	34"
Doorways	Is the doorknob height 48" or lower?	Y	43"
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Main	N	1/4"
Doorways	Can the door be opened with a closed fist and little physical effort? (Main Entrance)	Y	
Doorways	Does it take at least 3 seconds for the door to close? (Main	Y	
Doorways	Are doors automatic? (Main Entrance)	N	
Doorways	If applicable, can a person get from the actuator to the automatic door before it	N/A	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Accessible Entrance)	N/A	

Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the	Y	
Doorways	Is there an entranceway on an accessible route? (Accessible Entrance)	Y	
Doorways	Do all inaccessible entrances have signage indicating location of accessible	N	
Doorways	Is the clear width of the doorway 32" or greater? (Accessible Entrance)	Y	34"
Doorways	Is the doorknob height 48" or lower?	Y	43"
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it?	N	1/4"
Doorways	Can the door be opened with a closed fist and little physical effort? (Accessible	Y	
Doorways	Does it take at least 3 seconds for the door to close? (Accessible Entrance)	Y	
Doorways	Are doors automatic? (Accessible	N	
Doorways	If applicable, can a person get from the actuator to the automatic	N/A	
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all seasons including when	Y	
Floor/Ground	If the accessible route is across a grating, are the long dimension of the grating openings at right angles to the direction of travel and the narrower dimension is less	N/A	
Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without getting	Y	
Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?	N	Bump from parking lot

Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?	Y	
Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a	M	Mats by ordering area
Routes	If the accessible route meets a curb, is there a curb cut that complies with ADA-	M	There isn't a curb cut, but there is a curb ramp
Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the	Y	
Routes	If the accessible route makes a U-turn, is it at least 42 inches wide approaching the	N/A	
Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or less?	Y	
Routes	Is the accessible route free from	Y	
Routes	Does the accessible path signage indicate key landmarks and features to which it	M	There is a sign that says "order here" but no bathroom location signs
Tables and	Is there adequate toe (horizontal)	Y	
Tables and	Is there adequate knee (vertical) clearance	Y	
Tables and	Is accessible seating dispersed throughout	M	Can't sit along hallway
Tables and	Is wheelchair seating out of the pathway?	Y	
Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the	Y	
Tables and Chairs	In fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?	N	14"
Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?	Y	
Elevators	Where is the elevator located?	N/A	

Elevators	Allow wheelchairs users to access call buttons and keypads?	N/A	
Elevators	Is there an accessible path to the call buttons, elevator door and paths into and	N/A	
Elevators	Is the auditory signal directional and easy to hear but not too loud?	N/A	
Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is	N/A	
Elevators	Does the auditory or visual signal provide enough time to get into the elevator that	N/A	
Elevators	Is there signage on each side of the elevator, including Braille and tactile	N/A	
Elevators	Are buttons to higher floors above buttons	N/A	

Elevators	Are the buttons large enough that they could be easily pressed without a finger to	N/A	
Elevators	Are the buttons raised from the	N/A	
Elevators	Do call buttons provide feedback to indicate the call is registered?	N/A	
Elevators	Are the handrails on all non-door walls of	N/A	
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit the elevator?	N/A	
Handrails	What feature are the handrails a part of?	N/A	
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 1)	N/A	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 1)	N/A	
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 1)	N/A	
Handrails	Does the handrail end in a curved fashion?	N/A	

Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	N/A	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail?	N/A	
Handrails	Are the handrails sturdy the whole length of the run? (Feature 1)	N/A	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive	N/A	
Handrails	What feature are the handrails a part of?	N/A	
Handrails	Are the handrails continuous across the runs of the ramp/stairs?	N/A	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 2)	N/A	
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 2)	N/A	
Handrails	Does the handrail end in a curved	N/A	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run?	N/A	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail?	N/A	
Handrails	Are the handrails sturdy the whole length	N/A	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom?	N/A	
Parking	Is there are parking lot or street parking?	parking lot	
Parking	Are accessible parking spaces marked?	Y	
Parking	Are the accessible parking signs easily	M	Symbol is clear, words are faded
Parking	Is there at least 1 accessible parking space for every 20 spaces in the lot?	N	1 out of 17

Parking	Is there at least 1 van accessible parking	M	No, but van could fit in space
Parking	Do any of the spaces have access aisles? (all, most some, none?)	N	
Parking	Are access aisles part of the accessible route and closest to the accessible	Y	
Parking	Are parking spaces level?	N	many potholes
Ramps	Where is the ramp located?		
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?	Y	45"
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes	N/A	
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when there is	N	Full of potholes; "built up"/make shift job
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is	N/A	
Ramps	Is the slope of the ramp 4.8 degrees or	N	5.2
Ramps	Is the cross slope of the ramp 1.1 degrees	Y	1
Ramps	All ramp runs are no longer than 30'.	Y	60" long, 45" wide
Ramps	Are there handrails on both sides?	N	
Ramps	Is there a large enough landing on the top and bottom of the ramp, and if applicable,	Y	
Stairways	Where are the stairs located?	N/A	
Stairways	Are the step sizes uniform?	N/A	
Stairways	Accommodate feet but small enough to eliminate unnecessary additional steps?	N/A	
Stairways	Are the risers closed so there is not open	N/A	
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?	N/A	

Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings of the stairwell?	N/A	
Stairways	Are the treads free from slopes in any	N/A	
Stairways	Are there handrails on both sides of the	N/A	
Stairways	If there are switchback stair sets, is the inside handrail continuous?	N/A	
Restaurant Specific	Is there wait staff that brings your food to the table?	N	
Restaurant Specific	Are menus available that provide pictures of each food item?	M	

Restaurant Specific	Are menus available in Braille or electronic versions that can be read with screen	M	Online
Restaurant Specific	Are menus available on paper?	M	Catering Menu
Restaurant Specific	Does the primary means of reading the menu not require viewing a sign behind	Y	
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain background)	N	
Restaurant Specific	Is the lighting level in dining room and cashier appropriate?	Y	
Restaurant Specific	Is the noise level in the dining room and cashier appropriate?	Y	
Restaurant Specific	Is the food service aisle at least 36 inches wide along entire length?	Y	
Restaurant Specific	Does the food service line that requires a hard turn to enter or exit be at least 42	N/A	
Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from the floor	M	Some items are too far back
Restaurant Specific	Can dispensers for napkins, straws, condiments, etc. be operated with one hand	M	Some bottles requiring twisting

Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or twisting	M	Some bottles requiring twisting
Restaurant Specific	On request, can meals be served in adaptive plates, bowls, cups, etc. provided	Y	Naked burrito with tortilla chips on top or nachos
Restaurant Specific	Does the patron alert system provide signals through at least two sensory	N/A	
Restaurant Specific	Can the lighting level at an individual diner's table be increased on request?	N	
Restaurant Specific	Is there an option for quieter seating?	Y	Hall "cove"
Restaurant Specific	Can prepackaged items be opened with one hand?	N/A	
Restaurant Specific	Can prepackaged items be opened without	N/A	

Restaurant: Subway

Element	Item	Item Response	Comments/Notes
Signage	Do the characters have good contrast with surrounding surfaces?	M	bathroom=yes, please order here and pictogram on garbage- no (green on gold and black on dark green)
Signage	Are signs in a non-glare finish?	Y	
Signage	Are pictograms easy to see and understand?	Y	
Signage	Is the size of the text on the signs functional?	M	The please order here sign font isn't accessible
Signage	Is there Braille on the signs?	M	Only on the bathroom
Signage	Are Braille signs on the latch side of the door?	M	on the bathroom sign yes-58" high
Restrooms	Is there tactile signage identifying accessible restrooms?	Y	
Restrooms	Is the bathroom door automatic?	N	pull-very heavy
Restrooms	Is the restroom open to the public (does not require a key or passcode to open)?	Y	
Restrooms	Is the bathroom door width 32" or greater?	Y	35"
Restrooms	Is stall door operable with a closed fist both inside and out?	Y	
Restrooms	Is the stall door width 32" or greater?	n/a	one stall
Restrooms	Is the accessible stall at least	Y	5.5'x7.5'
Restrooms	Are toilets positioned with wall to the rear and on one side?	Y	
Restrooms	Are toilets 17-19" high?	Y	
Restrooms	Are there grab bars on the side wall nearest toilet and back wall?	Y	
Restrooms	Is there a back rest for the toilet?	Y	
Restrooms	Is it automatic flush? If it's manual, where is it located?	N	front left side
Restrooms	Can toilet be flushed with a closed fist?	Y	

Restrooms	Does the toilet paper dispenser allow for a continuous flow of paper?	Y	
Restrooms	Is the toilet paper easily reached?	M	sort of low
Restrooms	Is the bottom edge of the mirror 40" or lower?	Y	40" exactly
Restrooms	Is the sink height 34" or lower?	Y	32"

Restrooms	Is the clear depth under the sink is 8" or greater?	Y	10"
Restrooms	Can faucets be operated with one closed fist?	Y	
Restrooms	Are soap, other dispensers and hand dryers within reach?	N	Towel and soap are 52" high
Restrooms	If the faucets are manual, do they allow a water flow for at least 10 seconds after release?	Y	
Restrooms	Are exposed pipe under sink insulated, shielded from contact and without sharp edges?	M	about 2" showing at the top
Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Main Entrance)	n/a	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door swings? (Main Entrance)	n/a	
Doorways	Is there an entranceway on an accessible route? (Main Entrance)	M	need someone to open the door from the inside, plus it's usually locked
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances? (Main Entrance)	N	
Doorways	Is the clear width of the doorway 32" or greater? (Main Entrance)	N	31" for the door by the stairs (32" accessible)
Doorways	Is the doorknob height 48" or lower? (Main Entrance)	Y	43"

Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Main Entrance)	N	1/4"
Doorways	Can the door be opened with a closed fist and little physical effort? (Main Entrance)	M	little heavy
Doorways	Does it take at least 3 seconds for the door to close? (Main Entrance)	Y	
Doorways	Are doors automatic? (Main Entrance)	N	
Doorways	If applicable, can a person get from the actuator to the automatic door before it closes? (Main Entrance)	n/a	
Doorways	Is the door actuator associated with the door in proximity with tactile signage and intuitively placed? (Accessible Entrance)	n/a	
Doorways	If there are two doors in series, is there sufficient space for a wheelchair as the door swings? (Accessible Entrance)	n/a	
Doorways	Is there an entranceway on an accessible route? (Accessible Entrance)	Y	
Doorways	Do all inaccessible entrances have signage indicating location of accessible entrances? (Accessible Entrance)	N	
Doorways	Is the clear width of the doorway 32" or greater? (Accessible Entrance)	Y	32"
Doorways	Is the doorknob height 48" or lower? (Accessible Entrance)	Y	43"
Doorways	Is the doorway free of a threshold? If there is a threshold, how high is it? (Accessible Entrance)	N	1/4 inch
Doorways	Can the door be opened with a closed fist and little physical effort? (Accessible Entrance)	M	little heavy
Doorways	Does it take at least 3 seconds for the door to close? (Accessible Entrance)	Y	

Doorways	Are doors automatic? (Accessible Entrance)	N	
Doorways	If applicable, can a person get from the actuator to the automatic door before it closes? (Accessible Entrance)	n/a	
Floor/Ground	Is the surface of the route firm, stable and slip resistant in all seasons including when wet?	M	slippery if tile is wet, but mats were set down
Floor/Ground	If the accessible route is across a grating, are the long dimension of the grating openings at right angles to the direction of travel and the narrower dimension is less than 1/2 inch?	n/a	

Floor/Ground	Is the surface sufficiently smooth to allow wheelchair casters to roll without getting caught in surface variations?	n/a	
Floor/Ground	Does the slope of the accessible route not exceed 1:20 at any point?	Y	
Floor/Ground	Is the route free from steps and vertical level changes of greater than 1/4 inch?	Y	
Floor/Ground	Is the carpet or carpet tile securely attached to the floor and does it have a firm or no padding?	Y	
Routes	If the accessible route meets a curb, is there a curb cut that complies with ADA- ABA standards?	Y	
Routes	Is the accessible route no less than 36" wide to a height of 48 inches from the surface?	Y	

Routes	If the accessible route makes a U-turn, is it at least 42 inches wide approaching the turn, and 48 inches wide in the turn?	y	
Routes	Does the accessible route include areas that are at least 60 inches wide and 60 inches long at intervals of 200 feet or less?	Y	
Routes	Is the accessible route free from obstacles?	Y	
Routes	Does the accessible path signage indicate key landmarks and features to which it leads?	M	"please order here" sign overhead
Tables and Chairs	Is there adequate toe (horizontal) clearance at tables?	N	no toe clearance
Tables and Chairs	Is there adequate knee (vertical) clearance at tables?	Y	
Tables and Chairs	Is accessible seating dispersed throughout the restaurant?	Y	
Tables and Chairs	Is wheelchair seating out of the pathway?	M	one or two spots where you can pull out a chair
Tables and Chairs	In accessible booth seating, is the floor of the booth at the same level as the accessible path?	Y	
Tables and Chairs	In fixed seating, is the space between the seat back and the edge of the accessible table at least 18 inches?	Y	
Tables and Chairs	Does the accessible booth seating not require transfer over a hard rail?	Y	
Elevators	Where is the elevator located?	n/a	
Elevators	Is the clear landing space large enough to allow wheelchairs users to access call buttons and keypads?	n/a	
Elevators	Is there an accessible path to the call buttons, elevator door and paths into and out of the elevator?	n/a	

Elevators	Is the auditory signal directional and easy to hear but not too loud?	n/a	
Elevators	Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is traveling?	n/a	
Elevators	Does the auditory or visual signal provide enough time to get into the elevator that opened?	n/a	
Elevators	Is there signage on each side of the elevator, including Braille and tactile letters?	n/a	
Elevators	Are buttons to higher floors above buttons to lower floors?	n/a	
Elevators	Are the buttons large enough that they could be easily pressed without a finger to press the button?	n/a	
Elevators	Are the buttons raised from the surrounding surface?	n/a	
Elevators	Do call buttons provide feedback to indicate the call is registered?	n/a	
Elevators	Are the handrails on all non-door walls of the elevator?	n/a	
Elevators	Is there adequate space for a wheelchair user to enter, turn and exit the elevator?	n/a	
Handrails	What feature are the handrails a part of? (Feature 1)	n/a	

Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 1)	n/a	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 1)	n/a	

Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 1)	n/a	
Handrails	Does the handrail end in a curved fashion?	n/a	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run? (Feature 1)	n/a	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 1)	n/a	
Handrails	Are the handrails sturdy the whole length of the run? (Feature 1)	n/a	
Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom?	n/a	
Handrails	What feature are the handrails a part of? (Feature 2)	n/a	
Handrails	Are the handrails continuous across the runs of the ramp/stairs? (Feature 2)	n/a	
Handrails	If there is a landing, is the inside handrail continuous? (Feature 2)	n/a	
Handrails	Does the handrail extend beyond the top of the ramp/stair? (Feature 2)	n/a	
Handrails	Does the handrail end in a curved fashion?	n/a	
Handrails	Does the handrail stay at a consistent and fixed height for the duration of the run? (Feature 2)	n/a	
Handrails	Is there enough room between the wall and the handrail to allow users to comfortably fit their hand on the rail? (Feature 2)	n/a	
Handrails	Are the handrails sturdy the whole length of the run?	n/a	

Handrails	Does the gripping surface have rounded edges that are free of sharp or abrasive edges and attached on the bottom? (Feature 2)	n/a
Parking		
Parking	Is there are parking lot or street parking?	Street parking
Parking	Are accessible parking spaces marked?	
Parking	Are the accessible parking signs easily readable?	
Parking	Is there at least 1 accessible parking space for every 20 spaces in the lot?	
Parking	Is there at least 1 van accessible parking space?	
Parking	Do any of the spaces have access aisles? (all, most some, none?)	
Parking	Are access aisles part of the accessible route and closest to the accessible entrance?	
Parking	Are parking spaces level?	
Ramps		
Ramps	Where is the ramp located?	n/a
Ramps	Is the clear width of the ramp at all points at least 36 inches wide?	n/a
Ramps	Is there a landing that is at least 60 X 60 inches where the ramp changes directions?	n/a
Ramps	Is the ramp surface firm, stable, and slip resistant, even when wet or when there is frost?	n/a
Ramps	If the ramp surface includes a grating, is the smaller dimension of grating openings not greater than 1/2 inch, and the long dimension of the openings is perpendicular to the usual direction of travel on the ramp?	n/a
Ramps	Is the slope of the ramp 4.8 degrees or less?	n/a

Ramps	Is the cross slope of the ramp 1.1 degrees or less?	n/a	
Ramps	All ramp runs are no longer than 30'.	n/a	
Ramps	Are there handrails on both	n/a	
Ramps	Is there a large enough landing on the top and bottom of the ramp, and if applicable, where it changes directions?	n/a	
Stairways			
Stairways	Where are the stairs located?	Leading to front entrance	
Stairways	Are the step sizes uniform?	N	
Stairways	Are the steps large enough to accommodate feet but small enough to eliminate unnecessary additional steps?	M	First step is a little big
Stairways	Are the risers closed so there is not open space in the riser?	Y	
Stairways	Is the nosing on each stair small enough to reduce the risk of tripping?	n/a	
Stairways	Is the surface of the tread firm, stable, slip resistant, and free of water accumulation on the steps and landings of the stairwell?	M	slanted downward toward ground
Stairways	Are the treads free from slopes in any direction?	N	slanted downward toward ground
Stairways	Are there handrails on both sides of the stairs?	N	
Stairways	If there are switchback stair sets, is the inside handrail continuous?	n/a	
Restaurant Specific Features			
Restaurant Specific Features	Is there wait staff that brings your food to the table?	N	
Restaurant Specific Features	Are menus available that provide pictures of each food item?	Y	there is on the takeout menu
Restaurant Specific Features	Are menus available in Braille or electronic versions that can be read with screen reader?	Y	Electronic version online

Restaurant Specific Features	Are menus available on paper?	Y	
Restaurant Specific Features	Does the primary means of reading the menu not require viewing a sign behind the register?	N	
Restaurant Specific Features	Are current menus available in large print format? (At least 16 point, sans-serif font with high contrast with plain background)	N	

Restaurant Specific Features	Is the lighting level in dining room and cashier appropriate?	Y	
Restaurant Specific Features	Is the noise level in the dining room and cashier appropriate?	Y	
Restaurant Specific Features	Is the food service aisle at least 36 inches wide along entire length?	Y	
Restaurant Specific Features	Does the food service line that requires a hard turn to enter or exit be at least 42 inches wide?	Y	
Restaurant Specific Features	When self-service shelves are provided, are all meal selections available on shelves no lower than 15 inches from the floor and no higher than 44 inches above the floor?	M	the highest shelves for the soda and chips are above 44"
Restaurant Specific Features	Can dispensers for napkins, straws, condiments, etc. be operated with one hand with a closed fist?	Y	
Restaurant Specific Features	Can condiments and meal items be removed from containers using only one hand without tight grip, pinch or twisting of the wrist.	Y	
Restaurant Specific Features	On request, can means be served in adaptive plates, bowls, cups, etc. provided by the diner?	Y	plastic salad bowls
Restaurant Specific Features	Does the patron alert system provide signals through at least two sensory channels?	n/a	
Restaurant Specific Features	Can the lighting level at an individual diner's table be increased on request?	N	

Restaurant Specific Features	Is there an option for quieter seating?	N	
Restaurant Specific Features	Can prepackaged items be opened with one hand?	Y	but not soda, but they have fountain sodas
Restaurant Specific	Can prepackaged items be opened	Y	but not soda, but they have

Appendix C: IRB Protocol Form

IRBManager Protocol Form

NOTE: If you are unsure if your study requires IRB approval, please review the [UWM IRB Determination Form](#).

Instructions: Each Section must be completed unless directed otherwise. Incomplete forms will delay the IRB review process and may be returned to you. Enter your information in the colored boxes or place an “X” in front of the appropriate response(s). If the question does not apply, write “N/A.”

SECTION A: Title

Effect of Accessibility Information on Restaurant Selection of Consumers With Disabilities

A1. Full Study Title:

SECTION B: Study Duration

B1. What is the expected start date? Data collection, screening, recruitment, enrollment, or consenting activities may not begin until IRB approval has been granted. Format: 07/05/2011

03/05/2014

B2. What is the expected end date? Expected end date should take into account data analysis, queries, and paper write-up. Format: 07/05/2014

10/01/2014

SECTION C: Summary

C1. Write a brief descriptive summary of this study in Layman Terms (non-technical language):

The study seeks to address the research question, "How does accessibility information about restaurants cause people with disabilities to diversify their restaurant choices relative to the people with disabilities who have

only general review information about restaurants?" Participants (N = 60), half with disabilities and half without disabilities, will dine at 5 restaurants over 3 weeks. They will make their restaurant selections from a uniquely composed list with an equal number of restaurants that they have visited in the previous 2 years and those that they have not. Based on random assignment, participants will receive either accessibility review information or general review information about the restaurants during their decision process. A two-way ANOVA will determine whether people with disabilities who receive accessibility information select new restaurants with greater frequency compared to those that receive general review information. Results will potentially lend support for the public provision and use of accessibility information, such as the mobile and web based application called Access Ratings for Buildings (AR-B).

C2. Describe the purpose/objective and the significance of the research:

The purpose of the study is to assess how accessibility information about restaurants causes people with disabilities to diversify their restaurant choices relative to those with disabilities who have only general review information. The research is needed because a soon to be released mobile and web based application will provide users with restaurant accessibility information, but the tool's efficacy for increasing community participation for

people with disabilities is currently unknown. Although the Americans With Disabilities Act was designed to ensure that all public buildings were accessible, shortcomings in the law have resulted in little actual impact. Research indicates that people with disabilities experience limited community participation, and that the majority of factors contributing to this, such as physical barriers, are contextual in nature. This causes people with disabilities to miss essential components of development, health, and well-being that are obtained through community participation.

C3. Cite the most relevant literature pertaining to the proposed research:

The ADA Accessibility Guidelines (ADAAG) created to provide a framework for enforcing ADA standards have limited impact because they are vague, subject to varying interpretations, and are frequently in conflict with other laws (1). Many buildings are also not required to meet ADA standards due to exceptions in the law (2). Since ADA standards are therefore not ubiquitously implemented as intended, people with disabilities continue to encounter physical barriers that limit their community participation. Disability has been found to lead to participation that is less frequent and diverse, takes place more in the home, involves fewer social relationships, and is more

sedentary (3; 4; 5). Participation in the community for people with disabilities has a strong theoretical basis that highlights the role of the environment, as exemplified by the Ecology of Human Performance (EHP), the Person-Environment-Occupation (PEO) Model, and the International Classification of Disability and Health (ICF). According to the EHP Model, disability results when individuals have limited skills and abilities, derive fewer cues and supports, or lack the personal resources needed to interact with the environment (6). The PEO Model, the person, environment and occupation interact across time and space in ways that increase or diminish their congruence (7). The ICF was introduced by the World Health Organization in 2001 and endorsed as the international standard for viewing health and disability and emphasizes health and views an individual's functioning as an interactive process among a person's body, personal environment, and society (8). To address the problem of limited community participation for people with disabilities, the Rehabilitation Research Design and Disability (R2D2) Center at UWM is developing the Access Ratings for Buildings (AR-B) web and mobile application to provide accessibility information for Milwaukee buildings (9; 10; 11; 12; 13). Users will share comments and rate the level of accessibility of building features. Also, trained raters will perform comprehensive objective assessments. The user accessing the system will receive ratings from both of these sources.

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SECTION D: Subject Population

Section Notes...

D1. If this study involves analysis of de-identified data only (i.e., no human subject interaction), IRB submission/review may not be necessary. Please review the [UWM IRB Determination Form](#) for more details.

D1. Identify any population(s) that you will be specifically targeting for the study. Check all that apply:

(Place an "X" in the column next to the name of the special population.)

Existing Dataset(s)	Institutionalized/ Nursing home residents recruited in the nursing home
UWM Students of PI or study staff	Diagnosable Psychological

		Disorder/Psychiatrically impaired
	UWM Students (but not of PI or study staff)	Decisionally/Cognitively Impaired
	Non-UWM students to be recruited in their educational setting, i.e. in class or at school	Economically/Educationally Disadvantaged
	UWM Staff or Faculty	Prisoners
	Pregnant Women/Neonates	International Subjects (residing outside of the US)
	Minors under 18 and ARE NOT wards of the State	Non-English Speaking
	Minors under 18 and ARE wards of the State	Terminally ill
	Other (Please identify): Adults with mobility, vision, and hearing impairments	

D2. Describe the subject group and enter the total number to be enrolled for each group. For example: teachers-50, students-200, parents-25, student control-30, student experimental-30, medical charts-500, dataset of 1500, etc. Then enter the total number of subjects below. Be sure to account for expected drop outs. For example, if you need 100 subjects to complete the entire study, but you expect 5 people will enroll but “drop out” of the study, please enter 105 (not 100).

Describe subject group:	Number:
Adults with mobility, vision, and/or hearing impairments	30
Adults without disabilities	30
TOTAL # OF SUBJECTS:	60
TOTAL # OF SUBJECTS (If UWM is a collaborating site for a multi institutional	60

project):

D3. For each subject group, list any major inclusion and exclusion criteria (e.g., age, gender, health status/condition, ethnicity, location, English speaking, etc.) and state the justification for the inclusion and exclusion criteria:

All participants must:

-Age 18 and older

-Speak English

Participants with disabilities must:

-Report a disability (or disabilities) that impact his/her vision, hearing, or mobility

SECTION E: Study Activities: Recruitment, Informed Consent, and Data Collection

Section Notes...

Reminder, all recruitment materials, consent forms, data collection instruments, etc. should be attached for IRB review.

The IRB welcomes the use of flowcharts and tables in the consent form for complex/ multiple study activities.

In the table below, chronologically describe all study activities where human subjects are involved.

In column A, give the activity a short name. Please note that Recruitment, Screening, and consenting will be activities for almost all studies. Other activities may include: Obtaining Dataset, Records Review, Interview, Online Survey, Lab Visit 1, 4 Week Follow-Up, Debriefing, etc.

In column B, describe who will be conducting the study activity and his/her training and/or qualifications to complete the activity. You may use a title (i.e. Research Assistant) rather than a specific name, but training/qualifications must still be described.

In column C, describe in greater detail the activities (recruitment, screening, consent, surveys, audiotaped interviews, tasks, etc.) research participants will be engaged in. Address where, how long, and when each activity takes place.

In column D, describe any possible risks (e.g., physical, psychological, social, economic, legal, etc.) the subject may reasonably encounter. Describe the safeguards that will be put into place to minimize possible risks (e.g., interviews are in a private location, data is anonymous, assigning pseudonyms, where data is stored, coded data, etc.) and what happens if the participant gets hurt or upset (e.g., referred to Norris Health Center, PI will stop the interview and assess, given referral, etc.).

A. Activity Name:	B. Person(s) Conducting Activity	C. Activity Description (Please describe any forms used):	D. Activity Risks and Safeguards:
Recruitm ent	Student researcher	Recruitment will take place through electronic and paper flyers distributed throughout the University of Wisconsin-Milwaukee campus and other service providers that serve community members with disabilities, including Independence First, Vision Forward, and Milwaukee Center for Independence, the Center for Deaf and Hard of Hearing, and other service programs that serve individuals with disabilities.	There are no risks to participants.
Screenin	Student	Individuals will complete an	There are no risks to

g	researcher	<p>Eligibility Questionnaire, with which they will provide demographic and other information that the researcher will use to determine their eligibility to participate.</p> <p>Forms may be filled out in person, over the phone, or sent through e-mail and returned in person or through post mail. Participants with low vision or blindness will be assisted if needed with reading and completing the form. Participants who are deaf or hard of hearing will have the option of a sign language interpreter to facilitate communication with the researcher</p>	participants.
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		while completing the form.	
Obtain Consent	Student researcher	Participants will provide consent to participate through Qualtrics. The informed consent page will appear prior to the Dining Appraisal and History survey. The page will provide a link to the form, and a paragraph emphasizing that agreeing to participate means that they have fully read the form, all their questions have been answered, and that they can end participation at any time. They will then either click an “Agree” button or a “Disagree” button. It is not anticipated that participants with low vision and blindness will experience	There are no risks to participants.

		difficulty accessing the informed consent form because Qualtrics is accessible via screen-reader software (JAWS, MVDA, etc.) and magnification software ZoomText).	
Indicate familiarity with restaurants	Student researcher	Participants will complete a Dining Appraisal and History Survey, with which they will respond to questions pertaining to their restaurant selection process and dining habits, as well as an indication of whether they have visited each of 20 Milwaukee restaurants within the previous two years. Surveys will be completed via Qualtrics, which will be sent to them via	There are no risks to participants.

		e-mail.	
Select restaurants	Student researcher	Each participant will receive a uniquely-composed list of ten restaurants containing half that they have been to within the previous year and half that they have not. They will also receive either accessibility information or general review information for each restaurant, depending on whether they are in the intervention or control group. They will receive the review information either on a mobile device or on paper, and will be allowed 2 days to make their selections.	There are no risks to participants.

		They will indicate their choices on a Restaurant Selection form sent to them as a Qualtrics survey via e-mail, on which they will also list the characteristics of each restaurant that led them to select it.	
Dine at restaurants	Student researcher	Participants will have 3 weeks to dine at the 5 restaurants they selected. They will be responsible for their own transportation and meal expenses.	Participants may encounter risks equal to that which they would encounter during everyday activities within the community, including stress related to physical or communication challenges.
Post-dining survey and interview	Student researcher	After dining at all 5 restaurants, participants will complete a Post-Dining survey, on which participants will	There are no risks to participants.

		<p>provide information regarding their dining experience and the usefulness of the restaurant review information they received. The participant will come to the R2D2 center to complete the survey. The researcher will then conduct an audio-recorded interview with the participant to expand upon responses to questions on the Post-Dining survey. [Correction 2]</p> <p>Participants will be presented with a consent reminder form which they will sign before beginning the interview</p> <p>Participants with low vision or blindness will be assisted if needed with reading</p>	
--	--	--	--

		and completing the form. Participants who are deaf or hard of hearing will have the option of a sign language interpreter to facilitate communication with the researcher while completing the form and during the interview.	

E2. Explain how the data will be analyzed or studied (i.e. quantitatively or qualitatively) and how the data will be reported (i.e. aggregated, anonymously, pseudonyms for participants, etc.):

Analysis: Since the study will utilize both qualitative and quantitative data, a different method of analysis will be utilized for each. The quantitative data will be analyzed with a two-way analysis of variance (ANOVA) to compare the means between groups. Comparisons between groups will address the three hypotheses. Hypothesis 1: Comparison of the With Disability / Treatment group and the With Disability / Control group will show whether individuals with disabilities choose

more new restaurants with receipt of accessibility information relative to those who receive general review information.

Hypothesis 2: Comparison of the Without Disability / Treatment group and the Without Disability / Control group will show whether individuals without disabilities choose the same number of new restaurants regardless of whether they receive accessibility information or general review information. 3: Comparison of the With Disability / Control group with both Without Disability groups will show whether individuals with disabilities who receive general review information will choose fewer new restaurants than individuals without disabilities who receive either type of information.

Qualitative data will be provided through participant responses on the Restaurant Factor Survey, Dining History Survey, Restaurant Selection Form, and Post-Dining Survey. Data will be coded by two independent coders. The coded data will be assessed for patterns and themes.

Reporting: All data will be reported to maintain the anonymity of participants.

SECTION F: Data Security and Confidentiality

Section Notes...

Please read the [IRB Guidance Document on Data Confidentiality](#) for more details and recommendations about data security and confidentiality.

F1. Explain how study data/responses will be stored in relation to any identifying information (name, birthdate, address, IP address, etc.)? Check all that apply.

Identifiable - Identifiers are collected and stored with study data.

Coded - Identifiers are collected and stored separately from study data, but a key exists to link data to identifiable information.

De-identified - Identifiers are collected and stored separately from study data without the possibility of linking to data.

Anonymous - No identifying information is collected.

If more than one method is used, explain which method is used for which data.

F2. Will any recordings (audio/video/photos) be done as part of the study?

Yes

No [SKIP THIS SECTION]

If yes, explain what activities will be recorded and what recording method(s) will be used. Will the recordings be used in publications or presentations?

Interviews will be conducted with participants after they complete the Post-Dining survey to expand upon their responses to the survey. The interviews will be audio-recorded.

F3. In the table below, describe the data storage and security measures in place to prevent a breach of confidentiality.

In column A, clarify the type of data. Examples may include screening data, paper questionnaires, online survey responses, EMG data, audio recordings, interview transcripts, subject contact information, key linking Study ID to subject

identifiers, etc.

In column B, describe the storage location. Examples may include an office in Enderis 750, file cabinet in ENG 270, a laptop computer, desktop computer in GAR 420, Qualtrics servers, etc.

In column C, describe the security measures in place for each storage location to protect against a breach of confidentiality. Examples may include a locked office, encrypted devices, coded data, non-networked computer with password protection, etc.

In column D, clarify who will have access to the data.

In column E, explain when or if data will be discarded.

A. Type of Data	B. Storage Location	C. Security Measures	D. Who will have access	E. Estimated date of disposal
Online Qualtrics Surveys	Qualtrics server	Only PI and select research staff have access to the password protected server.	PI and select research staff	6 months
Particip	Secure	Access to server is password-	PI and select	6 months

ant contact information	server	protected	research assistants working with the study	
Key linking participant IDs to identifiers	Secure server	Access to server is password-protected	PI and select research assistants working with the study	6 months
Electronic data sets	Secure server	Access to server is password-protected	PI and select research assistants working with the study	6 months
Audio Recordings	Secure server	Access to server is password-protected	PI and select research assistants working with the study	1 month

How will that be done and t security measures are in place? to ensure security?

F5. Will data be retained for uses beyond this study? If so, please explain and notify participants in the consent form.

Data may be retained and utilized for ongoing development of the AR-B application.

SECTION G: Benefits and Risk/Benefit Analysis

Section Notes...

Do not include Incentives/ Compensations in this section.

G1. Describe any benefits to the individual participants. If there are no anticipated benefits to the subject directly, state so. Describe potential benefits to society (i.e., further knowledge to the area of study) or a specific group of individuals (i.e., teachers, foster children).

Participants will be compensated for their time, travel and meal expenses in the amount of \$75 via gift cards or through payroll if they are employed by UW-Milwaukee. They will contribute to the design of the AR-B mobile application and also to advancement in knowledge in the study of community behaviors of people with disabilities.

G2. Risks to research participants should be justified by the anticipated benefits to the participants or society.

Provide your assessment of how the anticipated risks to participants and steps taken to minimize these risks (as described in Section E), balance against anticipated benefits to the individual or to society.

Benefits of study participation to society and participants exceed risks. Since the level of risk involved is comparable to that which would be expected during everyday community activities (such as physical or communication barriers), risk is minimal. Benefit to participants and contribution to society and knowledge is significant.

SECTION H: Subject Incentives/ Compensations

Section Notes...

H2 & H3. The IRB recognizes the potential for undue influence and coercion when extra credit is offered. The UWM IRB, as also recommended by OHRP and APA Code of Ethics, agrees when extra credit is offered or required, prospective subjects should be given the choice of an equitable alternative. In instances where the researcher does not know whether extra credit will be accepted and its worth, such information should be conveyed to the subject in the recruitment materials and the consent form. For example, "The awarding of extra credit and its amount is dependent upon your instructor. Please contact your instructor before participating if you have any questions. If extra credit is awarded and

you choose to not participate, the instructor will offer an equitable alternative."

H4. If you intend to submit to the Travel Management Office or Accounts Payable for reimbursement purposes make sure you understand the UWM "Payments to Research Subjects" Procedure 2.4.6 and what each level of payment confidentiality means ([click here for additional information](#)).

H1. Does this study involve incentives or compensation to the subjects? For example cash, class extra credit, gift cards, or items.

Yes

No [SKIP THIS SECTION]

H2. Explain what (a) the item is, (b) the amount or approximate value of the item, and (c) when it will be given. For extra credit, state the number of credit hours and/or points. (e.g., \$5 after completing each survey, subject will receive [item] even if they do not complete the procedure, extra credit will be award at the end of the semester):

Participants will be compensated for their time, travel and meal expenses via gift cards in the amount of \$75. Participants who are employed by UW-Milwaukee will receive compensation through payroll, per standard operating practice. All participants will receive payment after dining at all 5 restaurants and completing the post-dining survey and interview.

H3. If extra credit is offered as compensation/incentive, please describe the alternative activity (which can be another research study or class assignment) which will be offered. The alternative activity (either class assignment or another research study) should be similar in the amount of time involved to complete and worth the same extra credit.

H4. If cash or gift cards, select the appropriate confidentiality level for payments (see section notes):

Level 1 indicates that confidentiality of the subjects is not a serious issue, e.g., providing a social security number or other identifying information for payment would not pose a serious risk to subjects.

Choosing a Level 1 requires the researcher to maintain a record of the following: The payee's name, address, and social security number and the amount paid.

When Level 1 is selected, a formal notice is not issued by the IRB and the Account Payable assumes Level 1.

Level 1 payment information will be retained in the extramural account folder at UWM/Research Services and attached to the voucher in Accounts Payable. These are public documents, potentially open to public review.

Level 2 indicates that confidentiality is an issue, but is not paramount to the study, e.g., the participant will be involved in a study researching sensitive, yet not illegal issues.

Choosing a Level 2 requires the researcher to maintain a record of the following: A list of names, social security numbers, home addresses and amounts paid.

When Level 2 is selected, a formal notice will be issued by the IRB.

Level 2 payment information, including the names, are attached to the PIR and become part of the voucher in Accounts Payable. The records retained by Accounts Payable are not considered public record.

Level 3 indicates that confidentiality of the subjects must be guaranteed. In this category, identifying information such as a social security number would put a subject at increased risk.

Choosing a Level 3 requires the researcher to maintain a record of the following: research subject's name and corresponding coded identification. This will be the only record of payee names, and it will stay in the control of the PI.

Payments are made to the research subjects by either personal check or cash.

Gift cards are considered cash.

If a cash payment is made, the PI must obtain signed receipts.

If the total payment to an individual subject is over \$600 per calendar year, Level 3 cannot be selected.

If Confidentiality Level 2 or 3 was selected, please provide justification.

A portion of participants will have disabilities that they wish to remain confidential, and participation in the current study could compromise this.

SECTION I: Deception/ Incomplete Disclosure (INSERT "NA" IF NOT APPLICABLE)

Section Notes...

If you cannot adequately state the true purpose of the study to the subject in the informed consent, deception/ incomplete disclosure is involved.

I1. Describe (a) what information will be withheld from the subject (b) why such deception/ incomplete disclosure is necessary, and (c) when the subjects will be debriefed about the deception/ incomplete disclosure.

Information will be withheld from participants regarding whether they are in the treatment group receiving accessibility information or in the control group receiving general review information. This deception is necessary for adequate comparisons between groups to uphold the integrity of the results. Participant knowledge of which group they have been assigned to would create a confounding variable.

IMPORTANT – Make sure all sections are complete and attach this document to your IRBManager web submission in the Attachment Page (Y1)

Informed Consent Forms

Consent to Participate in Study (Via Qualtrics)

UNIVERSITY OF WISCONSIN – MILWAUKEE

CONSENT TO PARTICIPATE IN RESEARCH

IRB Protocol Number: 14.324

IRB Approval Date: 04/28/2014

You are being invited to take part in the study titled: Effect of Review Information on Restaurant Selection of Consumers. This study is being conducted by Rachael Baumann, who is a graduate student at the Rehabilitation Research Design & Disability (R2D2) Center at UW-Milwaukee. The study is sponsored by the National Institute on Disability and Rehabilitation Research. Your participation is completely voluntary. You do not have to participate if you do not want to.

The purpose of this study is to understand what factors are considered in the process of choosing a restaurant to dine at. Study findings will contribute to the design of a mobile application under current development that will provide information about restaurants in the Milwaukee area. The study will be based at the Rehabilitation Research Design and Disability (R2D2) Center at UW-Milwaukee, where you will complete a survey and interview at the end of the study. Study locations will also include 5 restaurants on the east side of Milwaukee. Up to 60 individuals will take part in this study. Participation requires

a time commitment of approximately 2 hours per week for 4 weeks.

If you agree to participate, you will be asked to complete a total of 3 questionnaires (2 online and 1 in person) and dine at 5 restaurants located on the east side of Milwaukee. You will perform the following tasks:

Complete Restaurant Appraisal and History survey online (20 min).

Read restaurant review information for 10 restaurants (30-60 min).

Choose 5 restaurants from a list to dine at and complete the Restaurant Selection survey online (20 min).

Dine at the 5 restaurants you selected within 3 weeks (2 hours per restaurant).

Complete Post-Dining survey and interview. The interview will be conducted to expand upon responses on the post-dining survey (20 min.).

Forms will be completed online, except the post-dining survey, which will be completed at the R2D2 center on the UW-Milwaukee campus. Dining will take place at 5 Milwaukee restaurants.

You may be audio-recorded during the post-dining interview. If you choose not to be audio-recorded, you may still participate in the study.

Risks you may face by participating in this study include:

Physical: While traveling to and dining at restaurants, participants may encounter physical risks that are no greater than would be experienced during daily community activities.

Psychological/Social: Discomfort may be experienced during interactions with restaurant staff and other community members while dining at restaurants, with risks no greater than would be experienced during daily community activities.

Participation in this study will contribute to scientific knowledge, and will also aid in the development of a mobile application that will provide information to assist consumers in making restaurant choices.

Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as breach of confidentiality. While the researchers have taken every reasonable step to protect your confidentiality, there is always the possibility of interception or hacking of the data by third parties that is not under the control of the research team.

You will be responsible up-front for expenses associated with travel to and dining at restaurants during the study.

Participants will be compensated for their time, travel and meal expenses via gift cards in the amount of \$75. Participants who are employed by UW-Milwaukee will receive compensation through payroll, per standard operating practice. All participants will receive payment after dining at all 5 restaurants and completing the post-dining survey and interview.

Identifying information such as your name will be collected for research purposes to link survey responses to demographic and other information collected. Data will be retained on the Qualtrics website server for one year and will be deleted after this time. However, data may exist on backups or server logs beyond the timeframe of this research project. Data transferred from the survey site will be saved in an encrypted format for up to 10 years. Only the PI and select study staff will have access to the data collected by this study. However, the National Institute on Disability and Rehabilitation Research, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records. The research team will remove your identifying information after linking the data and analyzing the data, and all study results will be reported without identifying information so that no one viewing the results will ever be able to match you with your responses.

There are no known alternatives available to you other than not taking part in this study.

Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin Milwaukee. If you are a student, your refusal to take part in this study will not affect your grade or class standing.

For more information about the study or the study procedures or treatments, or to withdraw from the study, contact:

Rachael Baumann

R2D2 Center

Enderis Hall 135

PO Box 413

Milwaukee, WI 53201

USA

Voice (414) 229-6803

TTY (414) 229-5628

You may contact the Institutional Review Board at UWM for questions about your rights or complaints towards your treatment as a research subject. The Institutional Review Board may ask your name, but all complaints are kept in confidence.

Institutional Review Board

Human Research Protection Program

Department of University Safety and Assurances

University of Wisconsin – Milwaukee

P.O. Box 413

Milwaukee, WI 53201

(414) 229-3173

By clicking "I agree", you are indicating that you have read or had read to you this entire consent form, including the risks and benefits, and have had all of your questions answered, and that you are 18 years of age or older. If you choose to take part in this study, you may withdraw at any time. You are not giving up any of your legal rights by agreeing to participate.

Consent to be Audiotaped

UNIVERSITY OF WISCONSIN – MILWAUKEE

AUDIOTAPE CONSENT FORM

EFFECT OF REVIEW INFORMATION

RESTAURANT SELECTION OF CONSUMERS

PRINCIPAL INVESTIGATOR: ROGER O. SMITH

IRB Protocol Number: 14.324

IRB Approval Date: 04/28/2014

I agree to participate in an audio-taped interview about my dining experiences as part of this project and for the purposes of data analysis. I understand that the interview will discuss my opinions about the accuracy and usefulness of the restaurant review information, how it affected my dining experience, and what characteristics I value in a restaurant. I understand that my participation is completely voluntary and that I can stop at any time. Recordings of the interview will be stored on a password-protected computer. I agree that Rachael Baumann may audio-tape this interview. The date, time and place of the interview has been mutually agreed upon.

Signature

Date

It is okay to audiotape me during the post-dining interview portion of this study and use my audiotaped data in the research. You can still participate in the study if you do not agree to be audiotaped.

Signature

Date

Appendix D: Data Collection Forms

Eligibility Form

Full Name:

Email:

Phone:

How many years old are you?

What is the highest level of education you have completed?

Primary school only

High school, no degree

High school degree

Vocational school

Some university courses

University degree

Some graduate level courses

Master degree

Some doctorate level courses

Doctorate degree

Do you have a disability?

Yes

No

If so, what ability/abilities are affected?

Vision

Hearing

Mobility

Which mode(s) of transportation do you use?

Car (or other personal vehicle)

Bus or other public transportation

Taxi

Disability or medical transportation

Bicycle

Walking

Other (please specify)

Would you experience difficulty traveling to restaurants on the east side of Milwaukee?

Yes

No

Maybe (please explain)

Do you own a smart phone or tablet?

Yes

No

If so, what kind?

What do you use it for?

How often do you use the internet?

Never

A few times per month

A few times per week

Once per day

Several times per day

Do you have an e-mail account?

Yes

No

If so, how often do you check it?

Never

A few times per month

A few times per week

Once per day

Several times per day

Approximately how often do you go out to eat for each of the following meals?

Breakfast

Never

Sometimes

Frequently

Brunch

Never

Sometimes

Frequently

Lunch

Never

Sometimes

Frequently

Dinner

Never

Sometimes

Frequently

How many times per month do you go out to eat?

How did you hear about this study?

Dining History and Preferences

Survey

7/18/2014

Online Survey Software | Qualtrics Survey Solutions

Please answer the following questions. For some questions, you will type your response into the blank provided, and for others you will click inside of the circle to indicate your choice.

1. Please type your full first and last name in the spaces below

First

Last

2. List 5-10 characteristics you look for in a restaurant when choosing a place to go out to eat. (e.g. Cost, familiarity, dietary needs and preferences, customer service, atmosphere, closeness to home or work, food quality or taste, same place your friends go, get food quickly)

1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>
6	<input type="text"/>
7	<input type="text"/>
8	<input type="text"/>
9	<input type="text"/>
10	<input type="text"/>

3. Looking at the list you just wrote, please list the top 3 characteristics that you value in order of importance from most important to least important.

Most important	<input type="text"/>
Somewhat important	<input type="text"/>
Least important	<input type="text"/>

For the next 8 questions, please indicate your level of agreement with each statement:

4. I enjoy going out to eat

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. I go out to eat often

Restaurant Selection Survey

7/18/2014

Post-Dining Survey

Q1. Please answer the following questions. You will type your response into the blank provided. For questions 1-5, you will list the restaurants you selected to eat at. For each question, type the name of the restaurant and then list the features of the restaurant that led to your decision. For questions 7 and 8, please answer each thoroughly

Q2. 1. Please type your full first and last name in the spaces below

First Name

Last Name

7/18/2014

Post-Dining Survey

Q3. 2. Restaurant 1:**What features of this restaurant led to your decision to select it?
Please list 5-10.**

Name of Restaurant	<input type="text"/>
1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>
6	<input type="text"/>
7	<input type="text"/>
8	<input type="text"/>
9	<input type="text"/>
10	<input type="text"/>

Q4. 3. Restaurant 2:**What features of this restaurant led to your decision to select it?
Please list 5-10.**

Name of Restaurant	<input type="text"/>
1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
5	<input type="text"/>
6	<input type="text"/>
7	<input type="text"/>
8	<input type="text"/>
9	<input type="text"/>
10	<input type="text"/>

Appendix E: AR-B and Yelp Screenshots

Overview: Screenshots showing the interfaces of Yelp and Access Place. The screenshots are shown in the order a user would navigate when finding information about a given establishment. This progression is shown twice for Access Place in order to highlight the different data presented to individuals with different impairments – namely mobility and hearing.

The screenshot displays the Yelp Milwaukee homepage. At the top, there is a search bar with the text "Find tacos, cheap dinner, Max's" and "Near Milwaukee, WI". Navigation links include Home, About Me, Write a Review, Find Friends, Messages, Talk, and Events. A "Sign Up" button and a "Log In" link are also present.

The main content area features a promotional banner for Yelp: "Yelp is the best way to find great local businesses" with a "Create Your Free Account" button. Below this is the "Best of Yelp: Milwaukee" section, which lists various categories of businesses and their top-rated establishments:

- Restaurants** (2,017 reviewed):
 - 1. Ardent** (30 reviews): "...I especially enjoyed the 'Salt Roasted Celeriac, Trout Roe, Celery..."
 - 2. Love Handle** (50 reviews): "What can I say to do justice to this pickled apple."
 - 3. Odd Duck** (219 reviews): "Our group got a bunch of small plates and shared samples."
 - 4. Maxie's** (307 reviews): "Fried green tomatoes - perfect as always."
 - 5. Tochi** (88 reviews): "Their ramen is delicious and inventive without being over the top."
- Nightlife** (607 reviewed)
- Food** (913 reviewed)
- Shopping** (1,283 reviewed)
- Bars** (543 reviewed)
- American (New)** (193 reviewed)
- American (Traditional)** (259 reviewed)
- Pubs** (128 reviewed)
- Beauty & Spas** (592 reviewed)
- Automotive** (557 reviewed)
- Health & Medical** (451 reviewed)
- Home Services** (448 reviewed)
- Local Services** (323 reviewed)

On the right side, there is a "Review of the Day" section featuring a review by Tyheshia S. for "Three Stack Shack" with a 5-star rating. The review text reads: "Ok.... So I have decided since the weather has refused to cooperate I have decided that it will be 'Summertime in my belly'! I have been trapezing (can't believe that is not a real word) around... Read more". Below this is an "Archive" link.

Further down, there is a "Yelp on the Go" section with an image of a smartphone displaying the app and a "Get it for free now" button. The text says: "Get the Yelp app on your mobile phone. It's free and helps you find great, local businesses on the go!".

At the bottom right, there is a "Popular Events" section listing:

- UYE- Ja mir san mit'm Radi da! Oak Leaf Trail Biergarten Bike Tour!** (Sunday, Aug 17, 12:30 pm, 11 are interested)
- Milwaukee Irish Fest** (Tomorrow, Aug 14, 5:00 pm – Sunday, Aug 17, 10:00 pm, 9 are interested)
- MAM After Dark: Postcard Summer** (Friday, Aug 15, 6:00 pm)

pizza shuttle Milwaukee, WI

Showing 1-10 of 15

Show Filters



1. Pizza Shuttle

★ ★ ★ ★ ☆ 148 reviews

\$ - Pizza

Online Ordering

Lower East Side
 1827 N Farwell Ave
 Milwaukee, WI 53202
 (414) 289-9993



Let me just start by saying that we order Pizza Shuttle entirely too often. I love that this place is open late and has really fast delivery service. We are typically quoted 45-60 minutes and...



2. Ian's Pizza Milwaukee

★ ★ ★ ★ ☆ 91 reviews

\$ - Pizza

Online Ordering

Murray Hill, East Side
 2035 E North Ave
 Milwaukee, WI 53202
 (414) 727-9200



for healthy eaters. The pizza isn't the greatest I've had, but it is pretty good, definitely in the top tiers. Would beat **Pizza Shuttle** any day, but I like thin crust and I think **Pizza**...



3. Zaffiro's Pizza

★ ★ ★ ★ ☆ 142 reviews

\$\$ - Pizza

Lower East Side
 1724 N Farwell Ave
 Milwaukee, WI 53202
 (414) 289-8776



to have set foot into Zaffiro's. Happy to have eaten such good pizza, and saddened to have felt like I cheated on my girlfriend, **Pizza Shuttle**. Unfortunately, I might have to give...

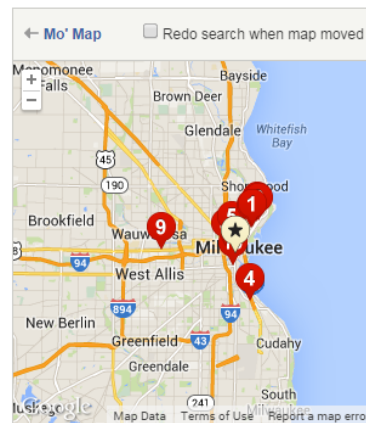


4. Classic Slice

★ ★ ★ ★ ☆ 144 reviews

\$ - Pizza, Vegan, Vegetarian

Bay View
 2797 S Kinnickinnic Ave
 Milwaukee, WI 53207
 (414) 238-2406





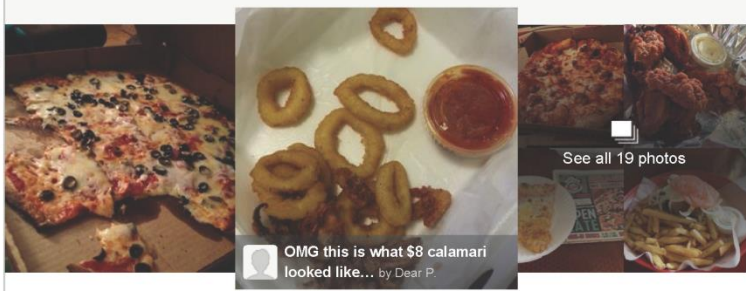
Pizza Shuttle

★ ★ ★ ☆ ☆ 148 reviews [Details](#)

\$ • Pizza [Edit](#)

1827 N Farwell Ave
Milwaukee, WI 53202
Lower East Side

[Get Directions](#)
(414) 289-9993
[Message the business](#)
[pizzashuttle.com](#)



- "I ordered a lot of food, ravioli, **bosco sticks**, a salad and bread sticks (came with the ravioli), All excellent." in 6 reviews
\$7.40 Bosco Sticks · [View the full menu](#)
- "They're **open late** and have great student nights so they're perfect for the campus area." in 20 reviews
Good For: Late Night
- "There is a jukebox, **photo booth**, crazy art and who could forget the inflatable cow." in 6 reviews

Order delivery or pickup

Pickup
 Enter your delivery address

1 Yelp St., Chicago, IL 60601

Today 10:00 am - 3:00 am **Open now**

[Full menu](#)

\$\$\$ Price range Under \$10

Recommended Reviews

English 148

Your trust is our top concern, so businesses can't pay to alter or remove their reviews. [Learn more.](#) X

Dana W.
Milwaukee, WI
0 friends
6 reviews

★ ★ ★ ★ ☆ 5/22/2014

Let me just start by saying that we order Pizza Shuttle entirely too often. I love that this place is open late and has really fast delivery service. We are typically quoted 45-60 minutes and it seems to never take more than 30. Customer service is also really decent for a late-night joint. We had an incorrect delivery (and cold...) ONE night out of the probably 50+ times we have ordered from them. We called and the situation was handled very well. They offered to remake the order even though they were already closed, but we just took a credit.

I also love that you have a choice of crust types without an additional charge. My favorites are the Milwaukee thin crust and the Detroit-style (newish). We usually get either pepperoni and pineapple or sausage mushroom and onion. I think they use some sort of sweet onions on their pizza, which makes it pretty much addicting. They also load 'em on, so be ready. The mushrooms they use are a fun variety and fresh, not canned. Huge plus. The appetizer selection is kind of daunting to read through and generally unimpressive. The chicken wings are awesome and we have never been disappointed by one of their wing sauces.

Hours

Mon	10:00 am - 3:00 am
Tue	10:00 am - 3:00 am
Wed	10:00 am - 3:00 am Open now
Thu	10:00 am - 3:00 am
Fri	10:00 am - 4:00 am
Sat	10:00 am - 4:00 am
Sun	10:00 am - 3:00 am

[Edit business info](#)

Menu

Gyro Price varies

Adam C. I have spent more money at Pizza Shuttle than I care to admit. It's not that they have great pizza...

Hawaiian Price varies

Spicy Battered Fried Pickles (8) 5.99

[View the full menu](#)

More business info

Takes Reservations **No**
Delivery **Yes**
Take-out **Yes**

The wonton mozzarella sticks are also pretty good. As for sandwiches, they actually have a really impressive gyro plate. Yum.

If pizza shuttle wasn't open until 3 AM, I have to admit, we probably wouldn't order from here nearly as often. If you're looking for good food late at night, though, Pizza Shuttle is spot on.

- Accepts Credit Cards **Yes**
- Good For **Late Night**
- Parking **Street**
- Bike Parking **Yes**
- Wheelchair Accessible **No**
- Good for Kids **Yes**
- Good for Groups **Yes**
- Attire **Casual**
- Ambience **Casual**
- Noise Level **Loud**

Adam C. 6/23/2014

Shuttle to assuage the pain of losing (and to soak up some of the beer). Slices for less than \$2? Sounds good. Beer on tap? Okay! Cheese sticks? Don't mind if I do!

Nothing was really great...but it certainly wasn't bad either. I think it might have been better if we had ordered a fresh pizza vs. getting some of the premade slices but whatever - it was super bread-y and did the job it was supposed to do.

Pizza Shuttle...I keep getting older and it stays the same age. Basically, it's alright, alright, alright.



Shannan L.
Milwaukee, WI
69 friends
14 reviews



5/19/2014

Oh Pizza Shuttle. . . You blow donkey b#is.

I've been eating you for years. Sober, drunk, hungover, in basically every state. And every single time you mess up the order. Not mess it up, but like totally make something up we didn't even order. Not only that, but your terrible. Teeerrriiibbblllee.

But the other nite you were horrible. Chart topping, record breaking, wtf horrible. Total waste of \$30. Next time someone says "Pizza Shuttle!" I'm slapping them. You make taco bell at 2am look like 4 star dining. Get your crap together.



Esther B.
Milwaukee, WI
0 friends
12 reviews



7/22/2014

Great pizza and great prices. They're open late and have great student nights so they're perfect for the campus area.



Kelsey L.
Milwaukee, WI
0 friends
5 reviews



8/4/2014

Excellent prices, delivery times are always super short, and they have a garlic butter crust... need I say more?



Katharine M.
Milwaukee, WI
5 friends
16 reviews




5/8/2014

Would I recommend this place? I don't know.

If you're gluten-free, their GF pizzas actually taste like pizza, so that's a huge plus. If you like a lot of buttery, garlicky crust, and don't care about calories for a night, this is a great option. Double pepperoni is super good if you're into that sort of greasy Toy Story style pizza. And the wings are fabulously glutinous.

But be prepared: delivery can take up to an hour (and often does).

One unfortunate incident occurred when somehow my order wasn't put through to the kitchen. They gave me half off for the inconvenience, but I was very annoyed, because I had waited the hour or so. If you need delivery. Don't. Call. Order online because the phone recordings are



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Welcome to the Access Ratings for Buildings (AR-B) app! You can use this app to...

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1. [Find Accessibility](#) information about a building
2. [Submit your own ratings](#) of a building's accessibility.

To leave or find reviews, click the Get Started button or click Search in the upper right corner. To change your settings, create or edit your profile, view your reviews, or change your e-mail address or password, go to Account.

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This website is supported in part by the Department of Education, National Institute on Disability and Rehabilitation Research (NIDRR), grant number H133G100211. The opinions contained herein do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

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Nearby places...

- A** [Pizza Shuttle](#) ★☆☆☆ 6 users have contributed 0 reviews 1.3 mi.
- B** [Dogg Haus](#) ★☆☆☆ 7 users have contributed 0 reviews 2.9 mi.
- C** [Ma Fischer's Family Restaurant](#) ★☆☆☆ 11 users have contributed 0 reviews 1.8 mi.
- D** [Benji's Deli](#) ★☆☆☆ 5 users have contributed 0 reviews 3.9 mi.
- E** [EE-Sane Thai Cuisine](#) ★☆☆☆ 4 users have contributed 0 reviews 1.3 mi.
- F** [Shahrazad Middle Eastern](#) ★☆☆☆ 6 users have contributed 0 reviews 2.4 mi.
- G** [Noodles & Company](#) ★☆☆☆ 15 users have contributed 0 reviews 2.7 mi.
- H** [Ian's Pizza](#) ★☆☆☆ 4 users have contributed 0 reviews 1.8 mi.
- I** [Bel Air Cantina](#) ★☆☆☆ 4 users have contributed 0 reviews 1.3 mi.

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← Pizza Shuttle

About Pizza Shuttle

Address:
1827 N Farwell Ave, Milwaukee, WI, United States
Phone: (414) 289-9993
Summary rating by people like you:
★★★★☆



Reviews

Click on a category below view accessibility evaluations and reviews for that category.

- Overall Accessibility** (1 users) ★★★★★
- Stairways** (8 AR-B comments) >
- Ramps** (9 AR-B comments) (1 users) ★★★★★
- Elevators** (1 AR-B comments) (1 users) ★★★★★
- Handrails** (16 AR-B comments) >
- Parking** (1 users) ★★★★★
- Restaurant Features** (1 AR-B comments) >
- Routes** (1 AR-B comments) >
- Floor/Ground** (1 AR-B comments) >
- Doorways** (4 AR-B comments) (1 users) ★★★★★
- Restrooms** >
- Tables and Chairs** (1 AR-B comments) (1 users) ★★★★★
- Signage** (1 users) ★★★★★

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Search [Study 20](#)

Search by keyword or name

Nearby places...

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- I** Bel Air Cantina ★★★★☆ 4 users have contributed 0 reviews 1.3 mi.

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Pizza Shuttle

About Pizza Shuttle

Address:
1827 N Farwell Ave, Milwaukee, WI, United States
Phone: (414) 289-9993
Summary rating by people like you:
★★★★☆



Reviews

Click on a category below view accessibility evaluations and reviews for that category.

Overall Accessibility (1 users) ★★★★★

- Stairways >
- Ramps >
- Elevators (3 AR-B comments) >
- Handrails >
- Parking >
- Restaurant Features (7 AR-B comments) >
- Routes >
- Floor/Ground >
- Doorways >
- Restrooms (1 AR-B comments) >
- Tables and Chairs (1 users) ★★★★★
- Signage (1 users) ★★★★★

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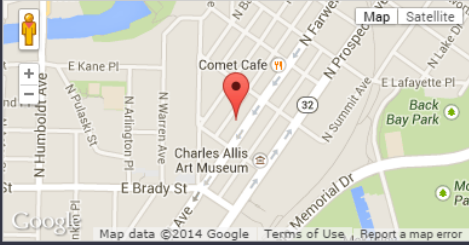
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Pizza Shuttle

About Pizza Shuttle

Address:
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Phone: (414) 289-9993
Summary rating by people like you:
★★★★☆



Reviews

Click on a category below view accessibility evaluations and reviews for that category.

Overall Accessibility (1 users) ★★★★★

Stairways

Ramps

Elevators (3 AR-B comments)

AR-B Trained Evaluator Comments

Does each elevator provide an easy to see visual signal when an elevator is about to arrive and to indicate what direction it is traveling?	No
Do call buttons provide feedback to indicate the call is registered?	No
Is the auditory signal directional and easy to hear but not too loud?	No

User Comments

There are no existing comments for this element.

Handrails

Parking

Restaurant Features (7 AR-B comments)

Routes

Floor/Ground

Appendix F: Data Sets

Enrolled Participants Basic Information

ID #	DIS TYPE	AGE	WEB USE	# DINING/MO
21	No Dis	35	Sev/day	2
25	No Dis	23	Sev/day	7
29	Vis	22	Sev/day	5
20	No Dis	35	Sev/day	10
6	Mob	77	Sev/day	15
17	No Dis	32	Sev/day	15
12	No Dis	52	Sev/day	12
4	Mob	71	Sev/day	6
7	Mob	46	Sev/day	27
10	Mob	57	Sev/day	3
22	No Dis	25	Sev/day	11
34	Vis	65	Never	8
28	No Dis	51	Sev/day	20
31	Vis	45	Sev/day	5
9	Mob	43	Sev/day	14
14	No Dis	67	Sev/day	13

13	No Dis	33	Sev/day	5
32	Vis	60	Sev/day	6
8	Mob	77	Sev/day	13
1	Hea	41	Sev/day	10
33	Mob	53	Sev/day	2
18	No Dis	34	Sev/day	3
11	Mult	63	Once/day	20
30	Vis	24	Sev/day	16
5	Mob	54	Sev/day	10
24	No Dis	21	Sev/day	6
26	No Dis	20	Sev/day	3
19	No Dis	51	Sev/day	7
27	No Dis	27	Sev/day	17
2	Hea	48	Sev/day	17
16	No Dis	26	Sev/day	4
3	Mob	54	Sev/day	4
15	No Dis	34	Sev/day	17
23	No Dis	28	Once/day	3

Dining Preferences (Survey 1: Dining History and Preferences)

ASSIGNED STUDY NUMBER	Group	Disabled	I go out to eat often.	I tend to eat at the same restaurants.	I enjoy trying new restaurants.	I go out to eat as frequently as I would like to.
6	1	Y	6	4	5	7
20	2	N	5	5	6	4
12	1	N	5	5	6	3
4	2	Y	6	5	7	6
10	1	Y	4	4	6	3
7	1	Y	6	6	6	4
34	2	Y	6	5	7	5
28	1	N	7	6	7	6
14	2	N	6	5	7	6
13	2	N	7	7	7	1
8	1	Y	3	3	6	2
33	1	Y	5	4	6	5
18	2	N	5	1	7	5
11	2	Y	6	5	7	5
5	2	Y	6	6	6	5

24	2	N	6	3	7	7
30	1	Y	5	6	7	3
27	1	N	6	6	6	6
19	1	N	6	5	6	2
16	1	N	5	5	7	6
2	2	Y	5	1	7	4
3	2	Y	5	5	5	3
15	2	N	6	6	5	5
23	1	N	5	4	5	5
			6	5	6	6
			5	5	7	3
			6	6	6	5
			5	5	7	4

Valued Features (Survey 1: Dining History and Preferences)

Healthy choices	Cleanliness	Value
food taste	customer service	cost
Cost	Dietary Needs	Get Food Quickly
Parking	Accessibility	Cost
food taste	wide selection	customer service
accessibility	space between table	type of food
Food quality	cost	location
accessibility	location	food quality
accessibility	cost	location
cost	customer service	atmosphere
dietary need options	taste of menu item	organic or natural
sources		
Accessibility	Food Type and Quality	Atmosphere
accessible with wheelchair	food quality	customer service
where your friends go	braille menu	atmosphere
Closeness	Health	servers
Value	Quality	Quickness of food
arriving		
Quality of food	cost	Recommendations

delicious, healthy fresh food	proximity	parking
dietary preferences	food quality	not too crowde
Food quality	Food quantity	Cost
Variety	Accesibility	Specials
food quality	cleanliness	close to home or
work		
quality of food	atmosphere	parking
cost	location	speed of service
Perferences	taste	get food quickly
type of food	quality of food	cost
Neatness, & clean	kindness	courtesy
reasonably priced	accessible menus	friendly

Survey 2: Restaurant Selection Comments

- I could see a menu and prices to know how much money to have on me..
- Good facility info but not a lot of positive info. If I was basing my visit in just the facility, I doubt I would choose any of them. It really makes you look twice at how much we lack.
- explained reviews
- It was pretty descriptive so I feel like I know what to expect (or not expect.).
- The main feature of a new restaurant I am considering is if the entrance is level or not and where I will park my car. Once I know that information then I work backwards on other access features (restrooms, tables) and only then do I think about the food (sad but true)
- gave lots of options
- Yes it was helpful to see what people had to say about each restaurant. I like to see how many average stars the restaurants get. I also liked to look at the restaurants menu and see what people who left reviews liked to eat there. They were overall helpful and interesting.
- Showed me everything I needed to know, how I would be able to order despite my disability and explained how the places catered to those disability

- I like knowing if a place is well lit and if I'll be able to have a conversation. Sometimes I go with a friend who has a stroller, so this could be useful info about stairs and accessibility
- Well, yes and no. I know all the restaurants on the list but Pita Pit, which sounds like the best of the bunch per their website. Some I have dined at, others I know by word of mouth.
- Let me think of why I choose the places I like to eat at.
- It provided me the essential information before I made my decision which restaurant I want to try.
- They usually comment on both the food and the atmosphere.
- It provides information about restaurant features from people whose needs are similar to mine.
- told me what to look for, pro's and con's, guide on what to order, conditions, etc.
- Not many vegetarians writing reviews compared to others so it is hard to tell if the vegetarian food is good.
- a) provided information about menu options for restaurants that we did not know. b) provided information about spiciness, where important. c) provided price range
- It was helpful to read what other peoples' experiences were so I knew what to expect. I like to find out the overall rating, the location and directions using the map feature, and what people thought of the taste, portion size, value, etc before I decide to spend my own money there.

- Very vague
- Was not applicable to my needs. Looked up websites and menu via internet
- They were reviews from real people.
- Too much to read & just because a place is accessible doesn't mean they have good food or their prices are good.

Appendix G: Equivalent Text Descriptions

Tables

Table 1: Project Design

Brief Description: A table showing the project design, including when each of the 4 groups received the intervention/ control and when the observation of the number of new restaurants selected took place.

Detailed Description: The table contains 5 rows and 6 columns. The rows of the first column list the 4 participant groups. The second column is labeled Intervention, and an X is placed in the rows next to the groups that received the intervention. The third is labeled Observation of the Number of New Restaurants, and an O is placed in the rows corresponding to each of the 4 groups. The last 3 columns indicate which of the 3 hypotheses each group relates to through green fill and a symbol marked H1-H3.

Table 9: Overall Procedures

Brief Description: A table displays the overall procedure for the study, showing 7 steps and details of each.

Detailed Description: The table has 7 rows and 2 columns. The rows display information describing each of the 7 steps, and the second columns lists details of the step that it corresponds to.

Table 10: Rate of Drop out at Each Phase

Brief Description: A table displays the number of participants that dropped out at each of 5 stages of the study.

Detailed Description: The table contains 6 rows and 2 columns. The rows of the first column list each of 5 stages of the study, and the rows of the second column list the number of participants corresponding to each stage.

Table 11: Participant Response of Number of New Restaurants and Age

Brief Description: A table displays the number of new restaurants selected by each participant group, as well as the number and mean age in each group.

Detailed Description: The table has 10 rows and 4 columns. The rows of the first column

list each study group. Rows of the second column list the number of participants in each group. Rows of the third column list the mean age and standard deviation in each group. Rows in the fourth column list the number of new restaurants selected in each group and the standard deviation for each.

Table 12: Results of Mann-Whitney U-test Between All Groups

Brief Description: A table displays the results of the Mann-Whitney U-test including the 3 hypotheses, the groups compared for each, and the number, mean, standard deviation, and Mann-Whitney U-test statistic for each hypothesis.

Detailed Description The table contains 7 rows and 6 columns. Rows of the first column list hypotheses 1-3. Rows of the second column list which groups are compared for each hypothesis. Rows of the third column list the number of participants in each group. Rows of the fourth column list the mean in each group. Rows of the fifth column list the standard deviation in each group. Rows of the sixth column list the significance value for each of the 3 hypotheses.

Table 13: Dining Preferences (Survey One) responses comparing people with a disability to people without a disability

Brief Description: A table displays 4 dining preference questions, the number of participants included in the analysis of each, the mean for each question, the mean and standard deviation for the Disability group, the mean and standard deviation for the Without Disability group, the T-test result for each, and the Mann-Whitney U result for each.

Detailed Description: The table has 5 rows and 7 columns. The rows of the first column list each of the 4 questions. The rows of the second column list the number in each analysis. The third column lists the mean in each analysis. The fourth column lists the mean and standard deviation in the Disability group. The fifth column lists the mean and standard deviation for the Without Disability group. The sixth column lists the T-test result for each analysis. The seventh column lists the Mann-Whitney U-test statistic for each analysis.

Table 14: Dining Preferences (Survey One) responses comparing Group 1(Intervention) to Group 2 (Control)

Brief Description: A table displays 4 dining preference questions, the number of participants included in the analysis of each, the mean for each question, the mean and standard deviation for the Disability group, the mean and standard deviation for the Without Disability group, the T-test result for each, and the Mann-Whitney U result for each.

Detailed Description: The table has 5 rows and 7 columns. The rows of the first column list each of the 4 questions. The rows of the second column list the number in each analysis. The third column lists the mean in each analysis. The fourth column lists the

mean and standard deviation in the Disability group. The fifth column lists the mean and standard deviation for the Without Disability group. The sixth column lists the T-test result for each analysis. The seventh column lists the Mann-Whitney U-test statistic for each analysis.

Table 15: Frequency Valued Restaurant Features Were Reported

Brief Description: A table displays 15 restaurant features, the total number of participants who reported each, the number with a disability that reported each, and the number without a disability that reported each.

Detailed Description: The table contains 16 rows and 4 columns. The rows of the first column list the restaurant features. The rows of the second column list the number of participants who reported that feature. The third column lists the number with a disability that reported each feature. The Forth column lists the number without a disability who reported each feature.

Figures

Figure 1: Screenshot of AR-B

Brief Description: A screenshot shows the AR-B web site at a page viewing Pizza Shuttle's accessibility information.

Essential Description: The user can view Pizza Shuttle's location information and each of the elements containing accessibility information.

Detailed Description: The top banner contains Access Place at the left and the following 4 buttons on the right: Search, Account, About, and Help. The left side of the page contains About Pizza Shuttle, its address, and shows that it received 3 out of 5 stars. Below this shows a map of where the restaurant is located. The right side of the page lists the following elements: Overall Accessibility; Stairway; Ramps; Elevators; Handrails; Parking; Restaurant Features; Routes; Floor/Ground; Doorways; Restrooms; Tables and Chairs; and Signage.

Figure 2: Screenshot of Yelp

Brief Description: A screenshot of Yelp shows the site's review information for Pizza Shuttle.

Essential Description: The user can view reviews and pictures for Pizza Shuttle.

Detailed Description: The Yelp logo is at the top left of the page. Below this is Pizza Shuttle, showing a rating of 3 out of 5 stars. Below this is a map of the location and 4 user reviews. On the right of the page are 3 pictures depicting pizza.

Figure 3: Number of New Restaurants Selected by Each Group

Brief Description: An array of 4 histograms displays the number of new restaurants selected by each of the 4 participant groups.

Essential Description: The bar values of the histograms show that the 2 groups with disabilities selected more new restaurants than the 2 groups without a disability.

Detailed Description: Four histograms are arranged in an array. The vertical axis of each represents number of participants and has a scale 0-5. The horizontal axis of each

represents number of new restaurants selected and has the following categories: Zero, One, Two, Three, and Four. The heights of vertical blue bars indicate how many participants fell into each category of number of new restaurants selected.

The histogram in the top left is titled Number of New Restaurants Selected by Disability / Intervention Group. There is a bar above the two categories that reaches to a frequency of 3 and another bar above the three categories that reaches to a frequency of 2. The top right histogram is titled Number of New Restaurants Selected by Without Disability / Intervention. There is 1 bar above the One that reaches to a frequency of 3. The bottom left histogram is titled Number of New Restaurants Selected by Disability / Control Group. The first of 3 blue bars is above the Two and reaches to a frequency of 2. The second is above the Three and reaches to a frequency of 1. The third is above the four categories and reaches to a frequency of 1. The bottom right histogram is titled Number of New Restaurants Selected by Without Disability / Control Group. There are 4 bars, all of which reach to a frequency of 1, and are above each of the following categories: Zero, One, Two, and Three.

Figure 4: Valued Restaurant Features by Group and Total

Brief Description: A histogram displays the number of participants with and without disabilities that reported each restaurant feature.

Essential Description: The most frequently reported feature for participants with disabilities was Accessibility, and the most frequently reported for those without disabilities was Cost/Value.

Detailed Description: The vertical axis of the histogram lists frequency of feature reported on a scale from 0 to 16. The horizontal axis lists each of the 15 feature categories. A vertical bar is above each category, with red showing the frequency with which participants without a disability chose each feature, and blue representing the frequency for those with a disability. The frequencies for each are listed in Table 8.

Figure 5: Number of New Restaurants Selected by Participants with Disabilities- AR-B vs. Yelp

Brief Description: A histogram displays the number of new restaurants selected by the 2 With Disability Groups.

Essential Description: Participants who received the AR-B intervention selected more new restaurants than those who received Yelp.

Detailed Description: The vertical axis of the histogram lists the frequency with which

each number of new restaurants was selected on a scale from 0 to 5. The horizontal axis lists each category of number of new restaurants with the following categories: Zero, One, Two, Three, and Four. Three participants who received Yelp chose one new restaurant. Three participants who received the AR-B intervention chose two new restaurants. Two participants who received the AR-B intervention chose three new restaurants.

Figure 6: Number of New Restaurants Selected by Participants without Disabilities- AR-B vs. Yelp

Brief Description: A histogram displays the number of new restaurants selected by participants without disabilities who received AR-B and Yelp.

Essential Description: Participants who received AR-B picked a few number of new restaurants, and the number selected by those who received Yelp varied.

Detailed Description: The vertical axis of the histogram lists the frequency with which each number of new restaurants was selected on a scale from 0 to 5. The horizontal axis lists each category of number of new restaurants with the following categories: Zero, One, Two, Three, and Four. For those who received Yelp, each category selected new restaurants at a frequency of 1. For the AR-B group, 3 participants chose two new restaurants.

Figure 7: Number of New Restaurants Selected by Participants with vs. Without Disabilities- Yelp

Brief Description: A histogram displays the number of new restaurants selected by participants with and without disabilities who received Yelp.

Essential Description: More new restaurants were selected by participants with a disability.

Detailed Description: The vertical axis of the histogram lists the frequency with which each number of new restaurants was selected on a scale from 0 to 5. The horizontal axis lists each category of number of new restaurants with the following categories: Zero, One, Two, Three, and Four. Participants without a disability chose zero, one, two, and three new restaurants each at a frequency of 1. Two participants with a disability chose two new restaurants, and one participant with a disability chose three and four new restaurants, respectively.