

Individuals with
Intellectual and
Developmental
Disabilities Obtaining
Washington State
Driver's Licenses

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Purpose of Study

The purpose of this paper is to begin a best practices analysis on how to best create and recommend a structured and effective driving course outline for individuals with intellectual and developmental disabilities in Washington State.

Individuals with intellectual and developmental disabilities (IDD) lack the appropriate access and ease to learning how to earn their driver's license. The problem is not from failing the physical driving test, failing the written knowledge test, or lacking of physical resources such as a practice vehicle, but rather the problem is rooted in not having the option of a class or teacher that can understand their way of learning that would allow for success in learning how to drive and pass the necessary state provided tests.

Without a valid driver's license, individuals with IDD have a smaller pool of options for places of employment, education, health services, and general entertainment. By providing an opportunity for individuals with IDD to properly learn how to drive, it will allow for growth in independence, socialization, critical thinking, and problem solving skills. It's another piece of documentation that allows individuals with IDD to live their best lives out in the community. Which in turn leads to higher self esteem, greater social circles, and general enjoyment of life through experiences that otherwise would have fallen void.

Background

In Washington State there is currently a set of prerequisites to be passed before anyone can obtain a driver's license in the state's name. General requirements include proving residency in the state, being of a minimum age, and passing mandatory driving tests and vision exams.

If a potential driver is of 18 years or older, there are three options to obtaining a license in Washington State.

1. Pass the knowledge test on a computer, then the skills test, which is the physical driving test.
2. Pass the knowledge test, get a learner's permit, practice driving in a course or with a licensed driver, then pass the skills test.
3. Complete an approved driver training course, obtain a learner's permit, then pass the skills test.
 - a. An approved driver training course must meet the following criteria;
 - i. A total of 30 hours of classroom instruction, with a maximum of 2 hours per day.
 - ii. A minimum of 6 hours of practice driving, with a maximum of 1 hours per day.
 - iii. A minimum of 1 hour of behind-the-wheel observation.
 - iv. Online and parent-taught traffic safety education are not approved courses. However, parents can assist with outside course practice driving. They are

to supervise a total of 50 hours of out-of-class time which includes 10 hours of nighttime driving.

The first option is the fastest and cheapest. The second option provides comfort in being taught by someone the new driver knows. The third option is for those who want a professional to teach and can skip the computerized knowledge test. This last option takes the longest amount of time and is the most costly.

The knowledge test is completed at any Department of Motor Vehicle (DMV) or Department of Licensing (DOL) in the state. The knowledge test could be taken as a walk-in or by appointment, both for a set fee. The test consists of 40 questions and a student must pass with an 80% or higher. Currently, the only accommodations for this test is to have an approved assistant read the questions and multiple choice options outloud to the student. Students are able to study the Washington State Driver Guide in order to prepare for this test. The book is available online or in hard copy for free. If a student fails the test, there is a two week waiting period before taking a redo test. Contents include but are not limited to;

- Securing a load onto the vehicle
- Adjusting mirrors and seats
- Traffic signals and signs, pavement markings, and general rules
- Steering, accelerating, speed limits, stopping, scanning
- Distracted driving, collision and roadside activity, emergency care
- Road conditions, lights, distance, motorcycles, buses, emergency vehicles, bikes
- Drinking, drugs, hearing, vision, health, emotions, fatigue, road rage
- Flat tires, brake failure, skidding, hydroplaning, power failure, engine failure

The skills test is also taken at the local DMV or DOL. A student driver must set an appointment and pay a fee. The fee often varies by location. The student must provide their own working vehicle and proof of insurance. The student will take the test with one evaluator who will score the test out of 100 points. An 80% or higher is needed to pass. If the score is failing, then there is a waiting period before the redo test can take place. The test will score a student's skills based on;

- Starting the vehicle; hand positions, mirror check, light check
- Leaving the curb; turn signals, checking blind spots
- Controlling the vehicle; gas, brake, steering wheel, speed
- Driving in traffic; lane changes, turn signals, checking blind spots
- Obeying signals and signs; speed, merges, yellow lights, warning signs
- Stopping; smooth, stop distance
- Driving through blind or crowded intersections; scanning, yielding, turn signals
- Backing up; around a corner, out of driveway, check blind spots
- Judging distance; following other cars, distance from bike traffic, passing
- Respecting others; paying full attention, giving notice of changes, right of way
- Performing specific maneuvers; parking on a hill, parallel parking

Once the skills test is passed, then the applicant can move on to the paperwork portion of the process. An applicant needs to provide proof of US citizenship, identity, WA residency, name change (if applicable), and payment of \$89 for a six year valid license as well as take a clear photo. A vision test is also completed and recorded. The license must be renewed every six

years either online or in person at any DMV or DOL. Late fees do apply to licenses that are passed a certain time after the expiration date labeled on the license card.

Separately from the licensing process, is the ability to qualify for a permanent disabled parking permit. This allows for drivers to use a placecard that hangs from the rearview mirror and have a specially designed plate. A driver must provide a note from a physician or registered nurse to the DMV or DOL while filling out a state application. A driver must only need one type of disability based on the criteria the state has. Two of which includes being legally blind and having limited mobility. Parking plates are \$32.75 while the placecards are free. Plates must be renewed yearly while the privilege of disabled parking must be renewed every five years.

Once a driver has an official Washington State driver's license, they are set for life. The only time one would need to retake the test is if they lived out of state for certain amount of years. The processes would include retaking the skills test and filling out the necessary paperwork.

Review of Literature

Literature and research is very limited, and not openly available on the subject of people with IDD and driving. However, the following articles provide information regarding how individuals with IDD learn the basics of driving such as staying in one lane or maintaining speed, whether they learn better independently or in a class, and discuss why having a license is an important component of everyday life. Two interviews were conducted within these references from first hand experience of people with IDD trying to learn how to drive, thus providing their

perspective of the difficulties. Further research will be needed to know the best methods of how to learn, when to learn, who can teach, how to teach, etc. Other prior research in this section includes studies that involve people with disabilities and their troubles with employment, recreation/travel, and other transportation conundrums from lack of a driver's license. Other overall limitations are addressed and included throughout.

From the UK, Jaya Hopkins and Alison Muir did a short study about someone with a learning disability transitioning into the workforce from sheltered life.¹ People with learning disabilities have been isolated for centuries from mainstream communities. They were registered as patients in wards, set up in their own community villages, or sent away to sheltered homes and workplace workshops. There was always the dream of being able to live out in the real world with real people doing real things, rather than living life in a synthetic neighborhood specially built in isolation. his article states that New Zealand was the location of choice by the United Nations Committee on the Rights of Persons with Disabilities and Robert Martin was the participant at hand. He had a learning disability and grew up in institutions. He believed in living in a society that valued people and included all opportunities for people with all kinds of learning disabilities to become real members in a real community living a real life. Martin paved the way by finding employment with all the diversity and inclusion he dreamed of. There was recognition that training would take time to integrate someone into society who has been sheltered for most of life, but it was a challenge worth taking on. With the assistance of natural supports at work, caregivers, and Martin's work ethic, he was able to succeed at work for the first 12 months with a great evaluation and was awarded a contract of another 12 months of work. Colleagues at work had to slowly and patiently adjust to having Martin around, but were happy to see him grow and

¹ Hopkins, Jaya & Muir, Alison. "Time to Put Clients on the Payroll." Learning Disability Practice. Sept 2014. Vol. 17 Issue 7, p20-23.

thrive at work. This shows that even though people with disabilities are not known for driving and haven't been around on public roads, doesn't mean they can't do it. Especially, with the proper training, time, and supports from those around the newly licensed drivers. After 12 months of great driving, people with IDD can continue to drive another 12 months accident free, then another 12 months without incident, and after their first five years of driving, will be deemed safe and clean drivers that are eligible for a wide variety of employment positions. More often than not, people with disabilities are overlooked for positions of employment, and it's especially so if they don't have a valid license. People want to work, people want to be around others, they want to make their own money to do their own things of interest. Opening up this option of employment for Martin is an example of how this population can easily be members of society and can be integrated quickly and painlessly.

Melanie Chapman in the UK partnered with colleagues to explain why people with learning disabilities go on fewer holiday trips than those of typical abilities². About 59% of those with learning disabilities go on holiday compared to the residents without a disability; 66%. Factors affecting less travel include poverty, lack of mobility accommodation during transportation and in the places that could be traveled to, lack of insurance coverage in case of emergency, and lack of awareness of disabilities from travel agents and tour operators. Traveling can also be avoided because of communication issues and lack of direct caregiving. Key findings from this research project include lack of diversity on the travel advertisements that encourage those with disabilities that they can achieve having a successful vacation, wheelchairs accessibility was very low in the tourist areas that were advertised through agencies, and transportation accommodations didn't include information about diet restrictions or mobility

² Chapman, Melanie. "We're All Going On A Summer Holiday." Learning Disability Practice. Dec 2007; Vol. 10 Issue 10, p12-16.

assistance. Interviews were conducted with participants with disabilities and they expressed reasons why they do not go on holiday trips. Reasons include inability to gather information, poor attitudes from travel industry employees, uncertainty about hotel facilities, inability to understand a map or list of instructions to find baggage or directions, affordability, transportation worries, and fear of flying and areas with flashing and bright lights. A main part of traveling is transportation; it is called “traveling” after all. If the idea of being able to rent a car was easy and accessible then being able to get around a foreign location for holiday would be less intimidating. Without a license, travelers are restricted to vocally or physical trying to hail a taxi, get around on foot or around streets and curbs that don’t cater to their wheelchair, purchasing expensive tickets to fly instead of roadtrip, or not traveling at all because they don’t want to deal with the stress of trying to improvise as they go. Also, lack of a license leads to low employment rates which result in poverty and unaffordability to go on holiday.

According to Haley Johnson of the Journal of Autism & Developmental Disorders, her experiment with gathering data on reaction times for social and non-social hazards for those with autism and those without autism show that those with autism do display a delay in reacting to a hazard down the road, but are still able to identify and problem solve within a reasonably safe amount of time³. To expand on this research would mean to figure out what a driver with autism would do if their reaction time was one second too late and they would have to address the consequences. A question would arise; how well can a driver with autism respond and problem solve a situation that involves a hazard and their vehicle? This would allow for research to determine critical thinking skills, response times, response behavior in terms of mood and

³ Bishop, Haley Johnson, et al. “Social and Non-Social Hazard Response in Drivers with Autism Spectrum Disorder.” Journal of Autism & Developmental Disorders, 10 Jan. 2017, pp. 905–915.

physical actions, and if they can properly follow insurance/emergency procedures. Is the driver able to do handle the situation independently and without causing more of a hazard on the road to other drivers? Later in this project, safety and social aspects of driving will be questioned and addressed.

In Stephany Cox's piece in the *Journal of Autism and Developmental Disorders*, she conducted a study that compared novice drivers with autism to typically developed drivers and their basic motor skills and executive functions⁴. She found that those with autism had poorer driving skills but that the root cause could be from the additional working memory tasks at hand. This research could be used to develop and implement a test that would measure a driver's memory and brain speeds that would allow them to be safe and responsive drivers while sharing the road with others. From this research, could be a solution to how to improve one's memory and strengthen their driving abilities.

In these next two studies, a driving simulator was used to gather the data. Johnell Brook dived into the question of whether or not a simulator was actually an appropriate tool to teach and evaluate driving skills to those with IDD⁵. It was found that half of the participants gained improvement in their driving skills from learning from a simulator after nearly a month of learning. An amendment to this study, the researcher would have to use more than four participants to get a better understanding of whether or not a simulator is a helpful tool or not. Also, there are a range of disabilities that can and cannot fully grasp the concept of using a simulator. It should be known the types of disabilities and to the degree of the diagnosis. An

⁴ Stephany M. Cox, et al. "Driving Simulator Performance in Novice Drivers with Autism Spectrum Disorder: The Role of Executive Functions and Basic Motor Skills", *Journal of Autism and Developmental Disorders*, 46, 4, (1379), (2016).

⁵ Brook, Johnell O, et al. "An Exploratory Investigation: Are Driving Simulators Appropriate to Teach Pre-Driving Skills to Young Adults with Intellectual Disabilities?" *British Journal of Learning Disabilities*, vol. 42, no. 3, 30 Apr. 2013, pp. 204–213.

interview after each simulator use should be conducted to figure out why the participant succeeded or not in order to have the simulator adapt to the learning styles and needs of the participant. If simulators could be proven helpful for the majority and available on the market, they would make for an easier and safe method for evaluating and teaching the rules and strategies of the road. A typical driving course ranges from eight to twelve weeks of learning before graduation. That's equivalent to two to three months. If the participants in this study showed improvement in just one month, it can be imaged how much better they'll be after the typical eight to twelve week courses. The state requires at least 30 hours of instruction in class and 50 hours of out-of-class practice. With all this time, students with disabilities could become the safest and most skilled drivers of all after learning with a simulator.

In Kentucky, a driving class was created and offered to only those with IDD⁶. The class specialized in using teaching methods that best suited the learning styles of the students and covered content other than the logistics of driving, such as what to do if someone is tailgating (a social aspect of driving). One of the students of this class was interviewed saying that he can get stressed out knowing he cannot grocery shop or go to appointments on his own. It's also not mentally satisfying knowing others can do what he can't on a daily basis. To be able to bring a class similar to this to Washington State would surely increase the number of active drivers which in turn would increase the percentage of residents that are employed and overall assist in economic growth as these new drivers get out into the community to participate in recreational activities. A copy of the curriculum could be used as a basis for a class in Washington State and modified to cater to the various students. It will later be stated in this project that other

⁶ Gillespie, Lisa. "At This Driver's Ed Class, Kentuckians With Developmental Disabilities Learn the Basics." WFPL, 2 Oct. 2017.

individuals with IDD in Washington share the same feelings as this Kentucky student in terms of stress and frustration from lack of a license.

In this article, a first person account of someone with IDD was recorded during his process of learning how to drive⁷. John had failed the knowledge test and was recognizing that he cannot learn at the speed of driving classes offered in his area. He spent countless hours studying the basics of driving in the library and spent even more time behind the wheel with his dad. His parents were concerned that he may never be able to drive to places on his own when he wanted to and be independent with transportation. John was having difficulties keeping his attention and honing in on his motor skills with his hands, eyes, and feet. It took John almost a year to figure out the logistics of driving, left from right, speed control, and all other aspects of operating a vehicle. Eventually, John was able to obtain a license and maintain safe driving practices such as avoiding accidents and speeding tickets. If a class or 1:1 tutoring was offered in his area, perhaps it would have taken John half the time to figure out how to drive. His case proves that it is possible with studying and support, but without the professional resources it took him much longer than he would have preferred which delayed a whole year of possibilities.

In Illinois, a mother of a daughter who was new to driving had contacted her local police department requesting information about programs that would help her daughter who has a hearing impairment.⁸ It was discovered that there are visor cards that can be used to communicate with drivers who are hard of hearing. Each visual card is provided to officers who can show that the driver was pulled over for speeding, not wearing a seatbelt, broken tail light, etc. As it turns out, some officers didn't even know this was an option. They were grateful to

⁷ Brown, Dale. "Driving and Learning Disabilities." Newsbriefs March-April 1985: 12, 15.

⁸ Isang, Marissa. "Buffalo Grove Police Using Visor Cards to Communicate with Hearing-Impaired Drivers." ABC 7 Eyewitness News. July 22 2018. Web.

have someone bring it to their attention and in the near future, are developing other identification cards or tools that could assist drivers with other kinds of disabilities. The goal is to have all police departments in the area be aware and utilize the tools whenever necessary. Similarly, the outcome of this study is to create a curriculum that would be used in and around the state of Washington by private and public organizations, whether that be driving schools, non-profits, colleges, or transition high schools. Also, it would be beneficial to have guest speakers, such as local law enforcement, introduce this programs and tools to new and oncoming drivers while they are in class so they are better prepared for what's waiting for them on the road.

Brittney, a successful driver with Cerebral Palsy, has become a columnist who focuses her writing on her lifestyle with a disability.⁹ She wrote an article about adaptive driving after being licensed for five years. When she was learning to drive, she had her mother be her teacher; someone who knows the learning style of the student. Once she felt comfortable enough with the basics of driving she enrolled in a local program that she found was best suited to her and her needs. The program she chose wasn't just about driving evaluation, but also assisted with finding vehicles that best fit wheelchairs and other needs. In order to become part of the program she was enrolled in, there was an intensive application process. There needed to be a note from a doctor, office of vocational rehabilitation, or worker's compensation. Brittney needed to be medically stable in the best physical and cognitive condition she could be in, be seizure free for the last six months, and have good vision based on state guidelines. She also needed to fill out various forms, visit therapists who performed vision and cognitive ability tests, and reaction times were tested in a simulator. After all of this, a conversation is had to determine what adaptive equipment is needed, in Brittney's case she needed steering and pedal lifting devices.

⁹ Clouse, Brittney. "My Experience with Adaptive Driving and Obtaining a License." Cerebral Palsy News Today. July 20 2018. Web.

Next, there's a follow up visit in which a driver's permit is required so the program can take participants out on the road to get used to the new adaptive equipment and vehicle. Programs like this should be available to all new drivers with various disabilities around the world. To have vigorous application processes and following state guidelines, programs can help put drivers on the road with disabilities and close those employment, transportation, wealth for recreation/travel gaps. Later on, it can be read that community drivers had concerns that could be solved through evaluation, training, and testing beyond what the state requires for all drivers.

Based on these articles and research projects, it's clear that driving with IDD is possible. Like most things in life, all that is needed is training/experience, the proper resources, and support from friends, family, and the community. Together, there can be an increase in employment, resident happiness, and financial well being in Washington State all by provided tailored curriculum to a population that obviously wants to participate.

Methodology

The main method of this research was through interviews. Interviews were conducted with a sampling size of six individuals with IDD who have a desire to learn to drive and obtain their Washington State driver's license. Interviews were verbally completed either in person or over the phone, anonymously. A set of twelve questions were asked to each participant.

The questions are as follows;

1. Have you given any thought to having a Washington State driver's license?
Explain.

2. What would you do with your license if you had one?
 - a. How has not having a license held you back from your goals?
3. Do you know how to obtain a license in Washington State? Explain the steps.
 - a. Could there be an easier way? What's your ideal process? Explain in steps.
4. Do you have the resources to learn how to drive? Explain.
 - a. Do you know how to get these resources? Explain.
5. Why haven't you gotten your license in Washington State yet?
6. If you were to take a class on learning to drive, would you learn better 1:1 or in a small group or some other way? Explain.
7. If you were to take a driving class, what do you think would be the best teaching method(s) for you? Explain.
8. If you were to take a class to learn to drive, how long do you think it would keep your attention?
 - a. How many days a week would you go?
9. What would you pay for a driver's education?
 - a. Do you think it's valuable enough to cost hundreds of dollars, like it is currently? Explain.
10. What kind of class would you prefer; the social aspects of driving, the logistics of driving, or both? Explain.
11. Would you have the energy or ability to learn from a regular driving class, like the ones offered now, as well as a supportive class at the same time? Explain.

12. What would it take for you to get to class and pass?

The sample size of this group should be expanded for more solid results, in future research. However, limitations are present when conducting interviews with people with IDD. Before those are addressed, it needs to be clear that the participants chosen for this project are people with various types of IDD. Disabilities include speech impairment, cognitive delay, Asperger's, autism, and partial deafness paired with an intellectual disability. All participants have given great thought about driving and the process they need to get through in order to be licensed in Washington State prior to each interview. They are able to speak their opinions, provide their constructive criticism, and fully understand the questions and purpose of this study. The limitations that arise include being able to have someone with IDD comfortably talk about themselves and their goals with a stranger, to be able to reach out independently without being approached or rewarded for participation, and ability to talk over the phone vs. in-person can be challenging.

Additional interviews were completed with eight anonymous community members who have some sort of professional or personal experience of working with people with IDD who already have a driver's license or the desire to drive to serve as a perspective of what their concerns are and to act as a second source of what is needed for a person with IDD to successfully drive. A set of seven questions were asked to each participant.

The questions are as follows;

1. Have you been driving in Washington State for at least five years?
2. Do you have a clean driving record for at least the last five years?

3. Do you have any personal or professional experience or connections with any drivers that have IDD? Explain.
4. How do you feel about having more drivers on the road that have IDD? Explain.
5. What do you think the process/requirements should be for people with IDD to get their Washington State driver's license? Explain step-by-step.
6. What is your biggest concern about people with IDD driving? Explain.
7. How can you and your peers become advocates for safe and successful drivers with IDD in Washington State?

The sample size of this group was larger than the previous but could still use more input from experienced drivers with connections to those with IDD who have driven or want to drive. The limitations of this group would be being able to find participants that would be able to talk about their connections and worries without violating any confidentiality agreement they have with their professional connections, as well as violating the privacy of their personal connections. Other limitations include, finding drivers that have a clean driving record of the previous five years and who have had a Washington State driver's license for the last five years thus proving they have gone through the process of learning the rules and testing on the roads.

A round of interviews with three current driving schools in King and Snohomish county (chains or not) were done in order to propose safety and liability policy recommendations for driver's education learning courses. These sources are anonymous. A set of eight questions were asked to each participant.

The questions are as follows;

1. What does your attendance demographic look like for those with IDD in your driver's courses?
2. How often do you get asked about your classes being a good fit for those with IDD?
 - a. What does your demand look like?
3. How well does your current curriculum serve those with IDD?
 - a. How can it be better?
4. Would you offer a completely separate course customized for those with IDD?
 - a. What does that process look like for you to start and advertise for that?
5. Do you think people with IDD having a Washington State driver's license outweighs the cons? Explain.
6. Would you become an advocate or partner with an organization who offers their own curriculum that serves those with IDD?
 - a. What would that look like for your business?
7. Do you have any personal or professional experience or beliefs that would influence your thinking about this topic? Explain.
8. Why haven't you branched out to serve those with IDD specifically?
 - a. Is there a difference between serving those with IDD vs. those with a physical disability only?

The sample size here may seem rather small, but the number of driving schools in these two counties (chairs or not) are already small. A problem that occurred during this phase of the project was being able to find schools that had open business hours that were not during peak

times of driving classes so an associate would be able to have a reasonably lengthy conversation. Another issue that arose was that one school had an employee that was uncomfortable answering the provided questions. The contact information provided to reach someone else was not effective and the owner's information was not given. A couple other schools were not interested in answering questions that did not lead directly to registration of a student. The list of questions that were being asked seemed like solicitation and unwanted attention.

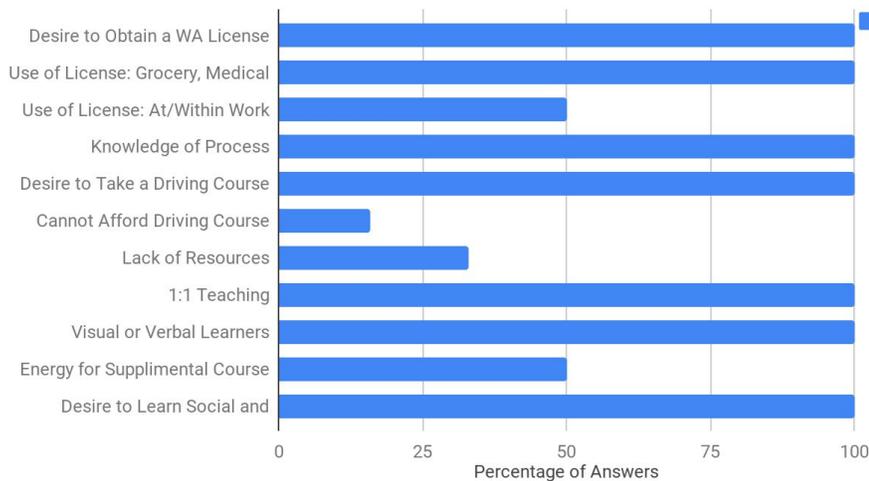
Feedback should be used to develop a curriculum plan that would be best suited to serve this population.

Results

Individuals with IDD were asked a set of twelve questions. For each question their answers varied. Though, commonalities can be found within certain questions. Of all the participants, 100% expressed their desire to obtain a Washington State driver's license in order to be able to drive to work, go grocery shopping, and attend medical and dental appointments independently without having to rely on family or the local bus system. Of those same participants, 50% wanted to be able to use their license for a task that is within their job description that they cannot do now. Such tasks include driving cars on the lot of a dealership and operating a forklift. 100% of the participants knew the general process of obtaining a license; taking the computerized knowledge test then the physical driving test, as well as filling out paperwork, taking a vision test, and taking a clear photo. Based on ages, 100% of participants knew that they did not need to take a driving class if they didn't want to, but 100% of

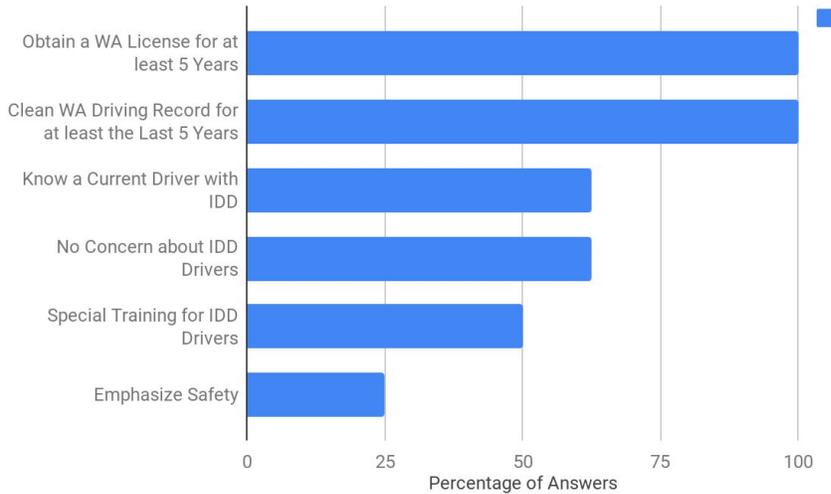
participants would like to. 100% of the participants said they have not obtain their license yet because they cannot study for the knowledge test on their own. Of that group, 16% said they cannot afford the driving courses that are locally offered and 33% said they do not have the resources to drive such as a practice vehicle or an at home instructor to practice physically driving. 100% of participants prefer to take a driving course 1:1 vs. in the small to large classes that are offered in their area. Of that group, 100% said they learn better visually and verbally in interaction and example games rather than by lecture, video, or reading. The average answer for keeping attention in class is 1 - 2 hours for 1 - 2 days a week for a handful of weeks. Of that group, 50% said they would be able to have the energy and ability to attend both a regular driving course along with a supportive class at the same time. 100% of participants would like to learn both the social and logistics of driving and believe paying an average of \$200 for a full course is worth it. Motivators for attending and passing class is to be able to travel independently or purchase their own car, to live like their peers and other family members.

Individuals with IDD Results



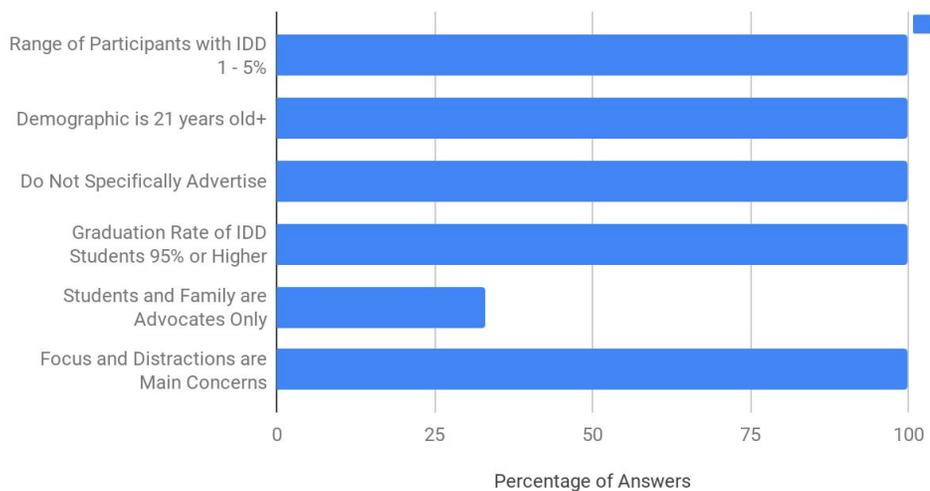
Community members had a set of seven questions. All participants have been driving with a Washington State license for at least five years and have a clean driving record of at least the last five years. 62.5% of participants know current drivers with IDD through their profession as the remaining know current drivers with IDD through their personal lives. 62.5% also thought that through proper education and training, having driver's with IDD share the road is not of concern. The remaining believed that having drivers with IDD would be of great benefit to those drivers, allowing them to be independent from their current bus systems and giving them freedom to travel for professional and social events in their lives. 50% of participants believed that people with IDD should have specialized training and accommodations for learning to drive while the other half thought the current rules and procedures that are in place now should be good enough for everyone. Concerns for those IDD driving vary among the participants. Concerns include not having the ability to problem solve, getting distracted, not having supervision while driving at all times, not knowing how handle emergencies, as well as being a target for all accidental situations even if it's not their fault. Of this group, 25% said they have no concerns at all that don't differ from typically developed drivers as well. 25% of participants said in order to advocate for those with IDD to obtain their Washington State driver's license, the community should emphasize safety whenever possible. Other ways to advocate include not generating or supporting the negative bias regarding those with IDD in any situation, spreading the supportive word through all media outlets, treating everyone who has passed the test in order to obtain their license with respect (as they went through all the same hoops as a typical driver if no more).

Community Drivers Results



Driving schools were asked a series of eight questions. 100% of the participants said their demographic for those with IDD in their classes ranges from 1 -5% of students throughout each quarter. Of this group, 100% said their students with IDD are of an older age; typically 21 or older. 100% participants said they do not advertise specifically to those with IDD and do not plan to. They serve anyone who registers that can keep up with the curriculum; it's rare that a student is told they are not teachable based on the curriculum they signed up for. All participants explained they do allow accommodations within the courses such as having a parent in the car during the practice driving, or having students have additional time during written quizzes. All participants said their graduation rate for those with IDD is about 95% or higher. 33% of the participants believe that the family members and the students are responsible for advocating for themselves if they want to drive in Washington State. 100% believe that focus and distractions are the main concern for those with IDD on the road. Some concepts may take them longer to understand. This differs from those with physical disabilities as this population has better mental reaction times still as they are typically developed.

Driving Schools Results



Discussion

Based on the results of this study, a few things need to be addressed when creating a curriculum that would successfully teach those with IDD to drive in Washington State.

The common themes in the answers that were recorded during the interviews, is that individuals with IDD need assistance with reading and studying for the knowledge test. The best way to do this seems to be through one-on-one teaching sessions for about 1.5 hours for 2 days of the week. 100% of interviewees that had IDD said one-on-one classes would be better for them, in terms of learning. In John's case, he couldn't keep up with the classes that were offered in his area and needed extra time to study¹⁰. He studied independently, which took a year to

¹⁰ Brown, Dale. "Driving and Learning Disabilities." Newsbriefs March-April 1985: 12, 15.

learn, and couldn't attend public courses. This shows that the next solution should be 1:1 tutoring by an instructor who has professional experience and education working with and/or teaching someone with IDD. Also, based on the approved courses by Washington State, classes must be no more than 2 hours at a time, so 1.5 hours would meet the state standard and the preferred time by students. In order to reach the 30 hour minimum for approved courses for Washington State at the preferred student rate of 2 classes per week, that means it would have to be a 10 week course that is offered locally. A suggested price would be \$100 for the entire course, as valued by the students, as Part I. Part I would prepare students for the knowledge test, while Part II (later mentioned) will be preparing students for the skills test.

Content of the Part I curriculum need to not only be what's in the Washington State Driver's Guide handbook but also have emphasis on safety with a portion about what to do in accidents and other emergencies, also known as the social aspects of driving. A concern by community drivers is the lack of responsibility that at fault drivers would admit to if they were to be in an accident with a driver with IDD. The teaching methods should be similar to that of the one offered in Kentucky¹¹, to teach with stimulating visuals or interactive verbal explanations and examples, as preferred by students that best suits their way of learning. Guest speakers could be present for a couple different course dates to make class exciting and applicable to real life. Like mentioned earlier, local police officers could speak about the various programs and tools that are available to students once they are active drivers. Someone from the DMV or DOL could come in and introduce the disabled parking and place card options. An especially necessary guest speaker could be someone with a IDD how already has their license and has been cleanly driving

¹¹ Gillespie, Lisa. "At This Driver's Ed Class, Kentuckians With Developmental Disabilities Learn the Basics." WFPL, 2 Oct. 2017.

for a certain amount of time. These different guest speakers would act as an attention grabber for students and allow them to ask questions about their future driving, laws, programs, and potential possibilities and experiences.

Once the student has completed all 10 weeks of Part I and has passed the knowledge test, with or without accommodation, they would be able participate in Part II of this proposed driving course with their learner's permit. Part II would cost another \$100 and be another 10 weeks of 1.5 hours of learning per day for 2 days a week and involve in-class teaching of how to operate a stationary and moving vehicle by an instructor who has professional experience or education working and/or teaching with people with IDD. The vehicle could be provided by the student or used from a partnership organization that provides assisted driving vehicles, like the one Brittney participated in when she got her license¹². An out-of-class requirement would be to have students practice physical driving with an adult that can suitably teach them, whether that's a non-driving instructor teacher, a parent, an extended family member, friend, or co-worker. This would meet the state requirement of having 50+ hours of practice driving time while having a learner's permit. Perhaps, as an optional part of Part II, there could be volunteers, who sign a liability waiver, act as the out-of-class driving practice companion for those who do not have someone at home that could assist. As one of the results of the interviews, that is a problem for some individuals with IDD, they don't have the resource of a supervisor to help them drive with their learner's permit.

Once this course has been completed, with all state requirements, students may take the skills test at their local DMV or DOL, with or without accommodation. After completing Part I

¹² Clouse, Brittney. "My Experience with Adaptive Driving and Obtaining a License." Cerebral Palsy News Today. July 20 2018. Web.

and Part II, a student would have 20 weeks, or 5 months worth of practice and knowledge of driving in Washington State. They would have a higher chance of passing the knowledge and skills test on their first try, thus saving time and money. Drivers would have spent the ideal amount of time in the classroom, the ideal amount of money towards education, have the preferred way of learning/teaching, learning a bit more about safety, focus, and prevention of distraction, and still have obtained a license faster than John did when working solely with himself and his parents because other public courses did not fit his learning style¹³. The current process the state has produced for residents to obtain a license has not been questioned, nor has suggestions for improvement been given by the interviewees of this project. Therefore, no changes are recommended to the state to better the processes for residents with IDD. Again, while learning in Part I, students could have a guest speaker come in and talk about the process in detail to make sure all potential drivers are prepared for what's expected once Part I is completed.

In the end, the outcome would be a sense of pride in each individual with increased independence and the purchasing of their first car. Activities of utilizing the license would be to go to work, add a task or two at work, grocery shop, and attend appointments without reliance on the bus system or a family member. Like the student of Kentucky, there would be less stress about depending on others and no hard feelings about not being able to do something that other peers can do on a daily basis¹⁴. There may also be an increase in independent living for those with IDD as they can move out now with their own means of transportation. Traveling during vacations days that were approved through paid employment is also a new-found possibility that

¹³ Brown, Dale. "Driving and Learning Disabilities." Newsbriefs March-April 1985: 12, 15.

¹⁴ Gillespie, Lisa. "At This Driver's Ed Class, Kentuckians With Developmental Disabilities Learn the Basics." WFPL, 2 Oct. 2017.

could be done independently because of understanding transportation and having the funds to do so from employment.

The demand for accommodating driving courses is medium to high for those with IDD and schools in the area need to be more aware of this population so they can better serve them and be the assistance in increasing the amount of drivers with IDD in the state. Advertising would be an immediate suggestion that would allow people with IDD to believe that they can get their license, that it's an option. Success stories should be shared to increase the belief that it can be done, given the right resources and opportunities. It will also show a sense of want and welcoming for people with IDD to learn from a local community driving school. Just like the lack of people with disabilities in traveling advertisements, it's the same for driving schools¹⁵. Inclusion matters and representation is important when reaching out to any population. A separate curriculum, not the small to large classes but 1:1 tutoring, should be offered each quarter by a number of hired tutors to address the demand and perhaps the percentage of attendance would increase thus increasing business.

Conclusion

This study was conducted in order to create a curriculum that would best educate those with IDD who want to obtain their Washington State Driver's License. The series of questions that were asked were designed to figure out the weak points of current educational classes and how to best advocate for an increased amount of IDD drivers in the state of Washington.

¹⁵ Chapman, Melanie. "We're All Going On A Summer Holiday." Learning Disability Practice. Dec 2007; Vol. 10 Issue 10, p12-16.

This study has had its limitations. The participants with IDD don't express all the different types of diagnosis' that affect the population, therefore the study does not grasp all the learning disadvantages that are suffered by others. The community member participants were interviewed have only explained that they know at least one person with IDD who is currently driving, but they have not actually seen the driver in action in order to know weaknesses and address concerns. The driving schools that were interviewed were only those that were stationed in the King and Snohomish County areas. Washington State consists of a numerous amount of additional counties that were not targeted during this study. Rural and Urban areas may differ in terms of student attendance and demand for accommodating courses.

In the future, this study could go on to learn from individuals who have IDD that are successfully driving in their everyday lives. Data on other states on how they teach their IDD population would be of value in order to create a solid curriculum. Perhaps even going further and accessing or implementing research from other countries that have a high percentage of those with IDD driving.

Implications of this study would mean an increase in freedom of transportation for drivers with IDD as they can choose when and how to get to their destinations. It would also increase job performance and opportunity of workers with IDD as they would be able to drive specialized machinery in certain job roles. Drivers with IDD would be able to move out of their childhood homes and rely less on their family if they were able to purchase their own vehicle and drive to work, grocery stores, and set appointments.

Those with IDD are a large population in Washington State and having a universal curriculum plan that can be tailored to each individual who wants to learn how to drive would

greatly increase the number of drivers on the roads, especially in urban areas. Separate studies can be conducted to figure out the impact of such a spiked number of active drivers on the roads and what that would mean for insurance companies, the department of transportation, and community drivers that would be sharing the roads.

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