

Inclusion

Figuring Out an Accessible PEDI-PRO Score Report for Young Adults with Disabilities --Manuscript Draft--

Manuscript Number:	INCLUSION-SPECIAL-ISSUE-S-23-00048
Article Type:	Perspectives
Keywords:	Inclusive Research; Lived Experience; intellectual and developmental disability; advocacy
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Manuscript Region of Origin:	UNITED STATES
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Abstract

This article was written by three researchers with intellectual and developmental disabilities who worked together to make an accessible report for the new PEDI-PRO app. We start by describing the PEDI-PRO software and why it's important to have an accessible PEDI-PRO score report. Next we describe how we used inclusive research practices to design the score report. Finally, we each highlight what we like about doing research. We think this research is important because it can help people have the ability to do things like have a job, be independent, and live on their own.

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Introduction

In this article, we will talk about how we worked together to make an accessible report for a new app called the PEDI-PRO. We are research team members in the YELL Lab at the University of Florida with Dr. Jessica Kramer, the director, and Fiorella Guerrero, a PhD candidate. We are independent and strong young adults with disabilities. We work one day a week on different research projects; Cyril and Elijah have worked in the YELL Lab for 3 years, and Bianka for almost 1 year.

To write this article, we brainstormed things we wanted to write about during our weekly work meetings. We reviewed our meeting notes to remember the steps we used to design the score report. We next made a Powerpoint™ presentation that included the different everyday activities, the different types of charts we tried in our design, and why we like doing research. We then turned the Powepoint™ ideas into paragraphs for the article. Two supervisors, Fio and Jessica, identified where we needed to add more words and pictures, or correct our grammar. We edited the paper by talking, listening, and typing it together on a large monitor.

What is the PEDI-PRO?

The PEDI-PRO is a software that helps people with disabilities in their daily lives (Kramer, Schwartz, Davies, Stock, & Ni, 2021). Youth and young adults with disabilities, including us, have helped design every part of the PEDI-PRO. To use the PEDI-PRO, you first pick the different activities you want to answer using the app (Figure 1). We helped pick the activities to include in the PEDI-PRO app. During a Zoom meeting, we reviewed a list of everyday activities that the PEDI-PRO team developed in a previous study. You can read more what they did in another article (Kramer & Schwartz, 2018; Schwartz, Kramer, & PEDI-PRO

Youth Team, 2021). After the meeting was over, we voted for the activities that were most important for young adults to be independent using Qualtrics. If we needed help using Qualtrics, we got one on one help from Fiorella. The everyday activities we chose are getting ready in the morning, going to a restaurant, working at a job, doing sports and exercise, cooking a meal and going to the doctor.

[Insert Figure 1 Here]

Second, to use the PEDI-PRO, there are questions about doing each activity. Each question includes a picture, and you answer the questions by saying if it's "a little hard", "a little easy" or "very easy". You hit next or continue and answer all the questions. We also helped pick the questions to include on the PEDI-PRO. You can read more about how we thought of these activities in another article (Kramer & Schwartz, 2018). We also helped design the pictures for each question. To do this, we used Google to look for ideas for an image showing each PEDI-PRO question. The artist then designed the pictures using our ideas. We reviewed the artist's pictures during our Zoom meetings. We said what we liked and didn't like about different pictures, and asked the artist to change the pictures. Table 1 shows an example of three of the everyday activities, an example question, and why we think these activities are important.

[Insert Table 1 Here]

Why We Need an Accessible PEDI-PRO Score Report

By knowing a person's opinion about how they do each activity, you can improve their skills. We need a score report that gives details or information about how a person does each activity on the PEDI-PRO. One meaning of accessibility is that we can reach or enter a place. For example, the door of the study room where we meet is not fully accessible. There is no push button to open the door. A second meaning of accessibility is that a report is easily understood or

appreciated. To have a report that is accessible for people with disabilities we need to make it easy to understand.

To think of the best way to design the report, we worked together with a bigger team called the Inclusive Cool Cats. There are seven members, including us. We met on zoom as we are located in Gainesville and Boston. We met seven times to work on the design. In addition to Jessica and Fiorella, another researcher Dr. Ariel Schwartz, helps us work together.

How We Designed the PEDI-PRO Score Report

We compared score reports using bar charts and pie charts examples made by Jessica and Ariel. We wanted to edit them to make it easy so other people could understand. Figure 2 shows an example of two charts we compared “side by side.” In a bar chart, you can tell the differences in what is very easy, a little easy, and a little hard by looking at the size of the bar. For example, in Figure 2, the bar chart shows that “very easy” was used the most, 80% of the time, because it is the highest. In a pie chart, you can tell the differences by looking at the percentage of the circle that is colored for very easy, a little easy, and a little hard. For example, in Figure 2, the pie chart shows that “very easy” was used the most, 80% of the time, because it is the biggest part of the whole circle. After we read each chart, we each voted for the chart we each liked best and thought was easier to read using Zoom polls. Jessica and Ariel would make more changes based on what we liked and didn’t like.

[Insert Figure 2 Here]

We also looked at multiple options for bar charts. We wanted to see which graph was easier to understand and more accessible. Figure 3 shows an example of two bar charts we compared. The one on the left side is sideways, and the one on the right is up and down. We

again voted for the chart we liked best using Zoom polls. Again, Jessica and Ariel kept making changes based on what we liked and didn't like.

[Insert Figure 3 Here]

It was hard for some of us because not everyone knew how to read bar and pie charts. We learned how to read bar and pie charts in while designing the score report. For everyone, small print is harder to see in the bar and pie charts, numbers were hard to see, and we needed a bigger size to make it easier to understand. We voted to decide between lots of different types of bars charts and the pie charts, but the votes were usually tied. Both bar and pie charts were very challenging to understand.

The Final Score Report

We came up with the idea of a table instead of the bar chart and the pie chart. A table is easier to read because the numbers, percentages, and name of the everyday activity have large font. There are three types of information included in the score report: 1) the "most very easy" summary table, 2) the "most little hard" summary table, and 3) a table for each everyday activity. These summary tables are not the same for every person, because each person has their own opinion about how they do everyday activities and their skills.

The "most very easy" and "most very hard" tables list the three everyday activities that receive the highest percentage of "very easy" and "very hard" ratings. In Figure 4, going to the doctor, going to a restaurant, and sports and exercise had the most very easy choices out of the six everyday activities on the PEDI-PRO. The person said that 64% of the activities in "Going to the doctor" were "very easy", 56% if the activities in "Going to a restaurant" were very easy, and 55% of the activities in "Sports and exercise" were very easy.

[Insert Figure 4 Here]

The other type of table is a summary table for each everyday activity. The summary table for the activity “working at a job” is shown in Figure 5. The row that is in blue shows the choice with the biggest percentage of responses for that activity. For this person, 57% of the activities in “working at a job” were a little hard.

[Insert Figure 5 Here]

What We Like About Doing Research

Bianka

The work we do is fun. I like to be with everyone to work, and help all the members of our team. I am in charge of reserving our room at the library. I have to do it one week before, sometimes after class or in between classes. Sometimes I don’t know what to do, and I ask for help. Jessica, Fio, Cyril, and Elijah are there to help. Since I have been working at UF, I feel good. It helps me get better at working with other people. I have learned to make presentations, improved in my writing and communication skills.

Elijah

It is important for people with disabilities to be involved in research because we want to be included. Not many activities include special needs in the community. I would like to work more in health and sports. For example, I went to events at Special Olympics of Alachua County, to meet other young adults and see if the PEDI-PRO is working and helpful for them. I also have a goal to work more hours and make more cash- this can give other young people with disabilities clues about how they can work, even when they also have Social Security Income (SSI). On my job, I have enjoyed creating apps and writing this article.

Cyril

It's important to work together as a team. We brainstorm and think of ideas. I enjoy being with others and making others feel good, I tell jokes and stories. This helps our work with ideas. I am a hard worker, I have confidence. I like working in a team. I like helping others. I help other people by creating apps for other people with disabilities. I help make the apps by selecting pictures and editing them. I tell the team when it might be hard for other people to understand the pictures or the values in the score report. This helps others understand the activities in the PEDI PRO, like Sports & Exercise and Going to the Doctor.

Conclusion

The PEDI-PRO Score Report will help other young adults with disabilities work on their skills. This is important so people have the ability to do things like have a job, be independent, and live on their own.

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Figure 1

PEDI-PRO App About the Skills of Young Adults with Disabilities in Different Activities



Figure 2

Comparing Chart Designs to Vote for the Chart that is Easier to Understand

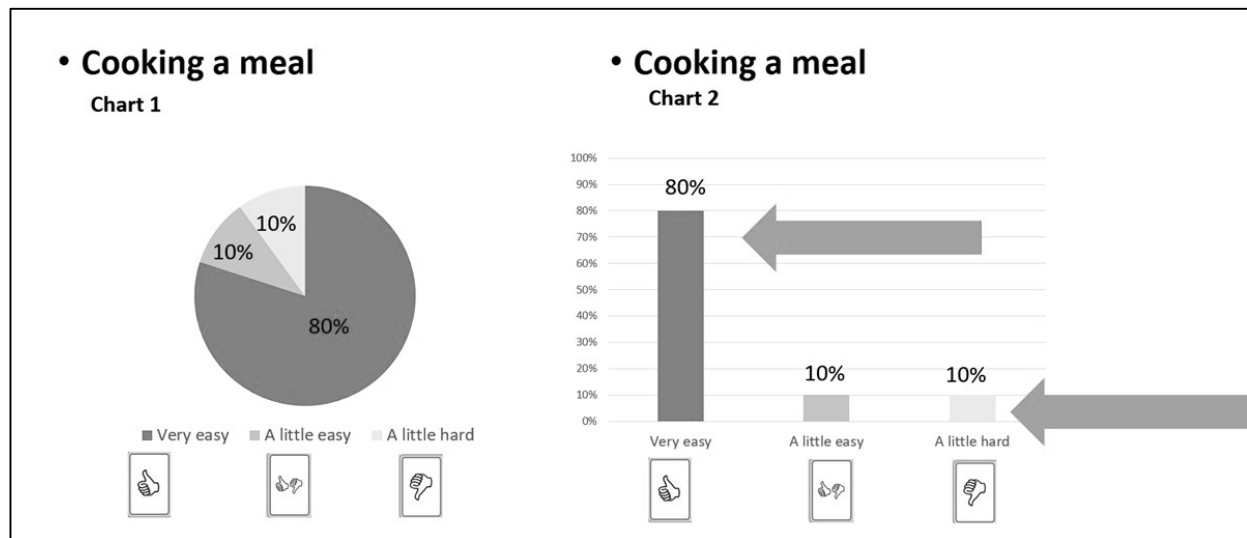


Figure 3

Comparing Bar Chart Designs to Vote for the Chart that is Easier to Understand

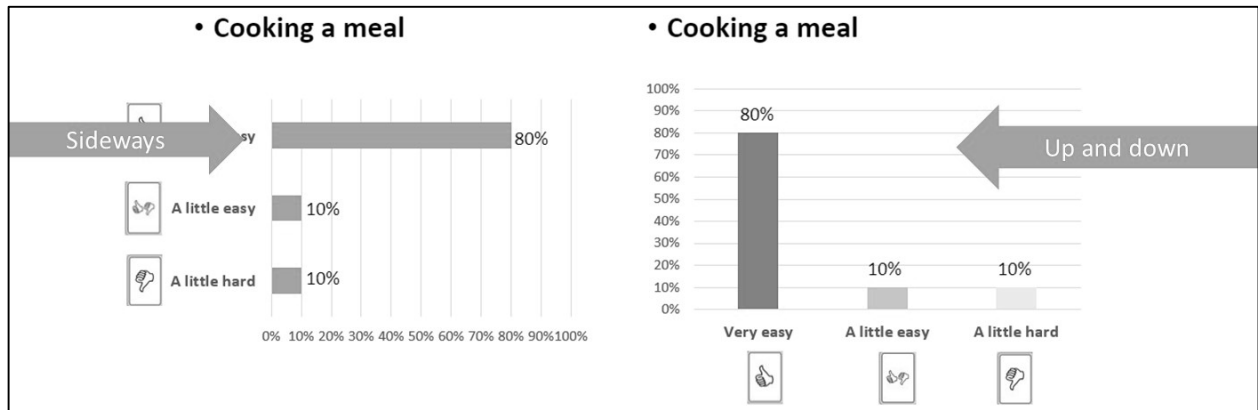


Figure 4

Example PEDI- PRO Report Table: The Most Very Easy Summary Table

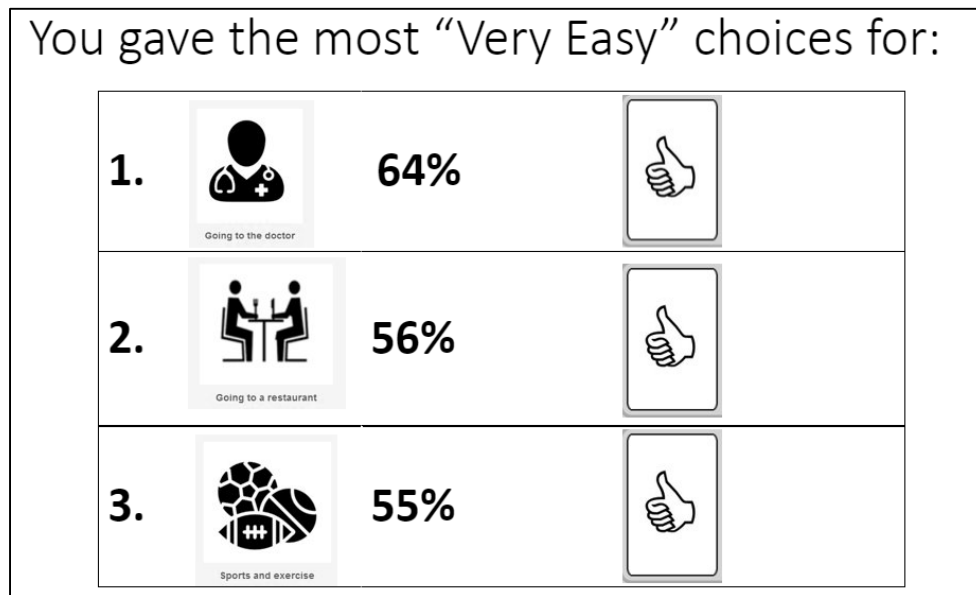


Figure 5

Example PEDI -PRO Summary Table for the Activity “Working at a Job”

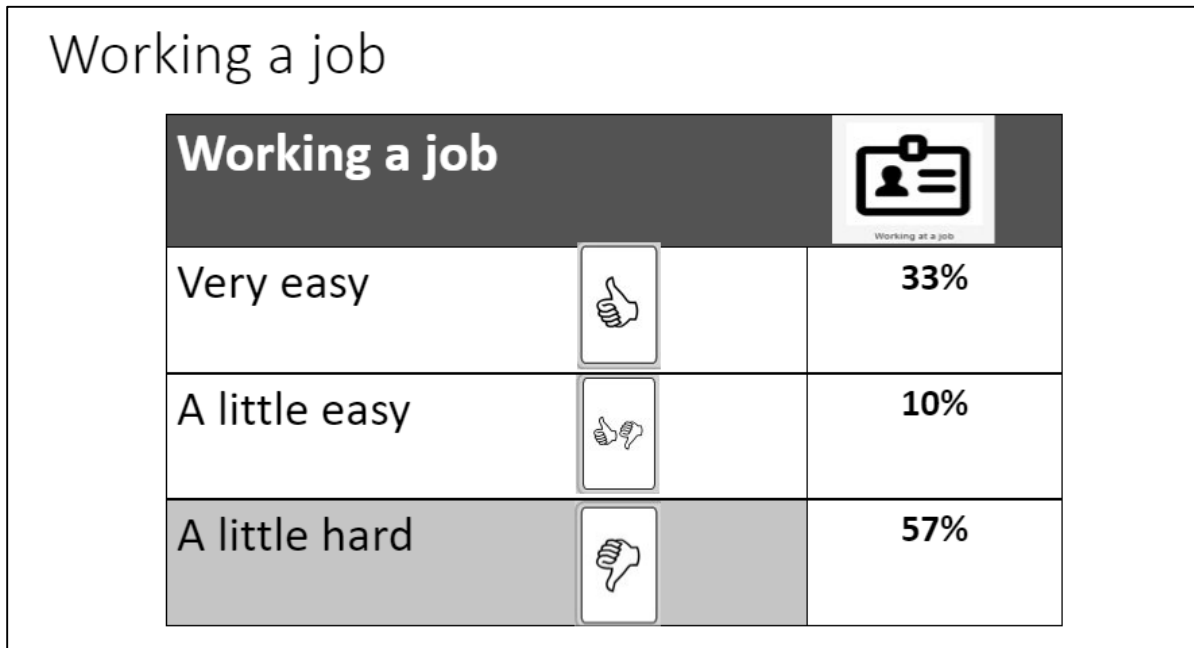


Table 1*PEDI-PRO Example Everyday Activities, Questions, and Why they are Important*

Everyday Activity	Example Question	Why it's Important
Going to the doctor	Politely ask my doctor if I can change my medication or care	<ul style="list-style-type: none"> You are required to see a doctor every year for an annual check-up, and you have to feel relaxed and know how to have a discussion with your doctor. If you take medication, you have to see a doctor to make sure you have the right amount for the year and tell the doctor how the medication is working.
Sports and Exercise	Pay attention to the coach when they talk to the team.	<ul style="list-style-type: none"> Sports and exercise helps you stay healthy by keeping your body strong and keeping you at a healthy weight. When you do sports or exercise, you get training on skills like catching a ball or dribbling, and you have to focus on what the coach is saying when they talk to the team.
Getting ready in the morning	Remember what activities I do on different days of the week.	<ul style="list-style-type: none"> Every day, when you wake up you need to be independent to get ready to go to school. It can be hard to remember all the different activities you will do on different days. You can use a planner to remember things to do.