

# Transcript of the 1st Brainstorming Session - June 5th, 2024

And then we will continue, [omitted for review] can also come and compliment, as [omitted for review] is already studying a lot about Mini-Mental.

So the first question we have here is whether there is any system, any similar application that is applied to the diagnosis of some other limitation.

So, for example, some application that is similar to MiniMental for diagnosing other things. [omitted for review] even found Minera. [omitted for review], do you want to talk a little bit about it? I found Minimera, which was used during Covid-19 to make online diagnoses.

And then I found an article talking about it, but the world went really deep into it. Then I found, because of the difficulties that people were encountering with Covid-19 in making the diagnosis with MiniMental, They used this other option which was Minimera. Do you know of any that are similar?

This is important to us because we will look at these similar products and try to see if we can bring something in terms of design to ours as well. Because let's imagine it this way, it's a solution that already works, that works, so we can learn from this user experience as well. So we wanted to know if you have any recommendations for any, if you know Minera too.

Guys, from what I can see, there is a shortage in our area. We have many tests that are administered in person. Or at most, the one we applied now in the research, but it is an interview with the parents, which is digitalized. Test like this, I must have, but I don't know, I don't know the girls.

I think so, [omitted for review], we would have to do some research in the literature, honestly, because we didn't look for it, right [omitted for review]?

I remember [omitted for review] commenting that she found it a show of cognition, that she even said she would pass it on to you, [omitted for review].

[omitted for review] said that, that she is working, that she is a master's student of ours here in common, it is [omitted for review], but my daughter gave it a lot of time.

But she is doing about screen use and cognitive development and she said that in that search she found some article. She said, I'll even send it to [omitted for review], you came to send it. So, like this, it must exist, I don't know, certainly the application here in Brazil, I don't think so.

But internationally there must be some tool like that, I believe, maybe. I don't know if, [omitted for review], you said you have some experience with the entire application, something diagnostic, right?

No, here we use a lot of apps for alternative communication. Or for visual cues, but it's motor issues, you know? I even did a quick search here, but I really need to look again to see if I can find it.

So, I also believe that it won't happen, you know [omitted for review]?

So, people don't do anything very involved in this cognitive part. Especially when we look at children like this, we always evaluate motor skills much more. So, I don't think we're going to have that.

Right.

I'm going to ask [omitted for review], because I even invited [omitted for review] to this meeting, which is our interface with the management, translation and validation. She says she can every day, even Wednesday morning. Then I thought, I'm not even going to mess with anything, it was difficult for each meeting, and another one with signs calling. But she told me that when I got in touch, she sent an audio message saying that this was the trend. To put the tests in this digital format and such. And she works with cognitive tests and

such, she is a psychologist.

So, I'm going to write down the questions we don't know how to answer and we're going to research them.

And I'll also check with [omitted for review], who sometimes has something to recommend to us.

Okay. If you could take a look for us, we only found the minimera. In fact, [omitted for review], who did the research, only found about the minimera. So, if we find any more, it's important for us to be able to see what the interface of these other digitized tests is like. So, I'm going to even note here that you're going to do some research for us, you're going to help us with that part too.

The girls will pass the literature.

Okay. Now, we can better understand how it works. So, when we watched the video and saw how it was applied before that application, is there another form being used to collect demographic data in a more specific way?

Generally, [omitted for review], we do an anamnesis with the family, with the parents, in short, to find out the child's history. That is an instrument that we use for screening, but we have other associated data, right, girls?

Yes, the instrument is the same, but we, generally, when we are going to do research, we always use a sociodemographic questionnaire, right, but it is something complementary. Because the mimi-mental is standardized, right?

Its standardization is exactly that, right?

I understand.

But we always have something extra, right, [omitted for review]?

I understand. So, when scanning it, we wouldn't scan this sociodemographic form, no. Just the mini-mental.

That's right. Right.

And the basic necessary data, the child's name, gender, date of birth, things like that.

The first question, right, is the mini-mental. It's already there, right?

Sure.

If I explain to [omitted for review], [omitted for review], we filmed the application of the mini-mental with the child there at the clinic.

At the internship itself, [omitted for review], I don't know if you remember her, she's a PC from MFCS1, very light, you can't even tell that she's not a PC, you know?

They already have a PC, but then we filmed it so [omitted for review] and [omitted for review] could understand how the application works.

Now, perhaps, [omitted for review], because this way, we will try to find out how this child's cognitive is.

Yes.

Having an entry screen where we could not collect some children's information, like age. Let's assume she doesn't know her correct age, you know?

I understand, so it's like making an entry in this registry, and I think that's it interesting, right?

We have the age, perhaps, a very small identification that used to be of application of the test.

Sure.

Because it may be that the child himself has this difficulty, that's what we're going to do find out, right?

Usually the tests have the date of birth, the age, and we calculate both things, right? The child's name, gender and evaluator, that's the basics, the minimum, right? Which usually every test has.

So the ones who will enter this data are the healthcare professionals, so it would be interesting for each professional to have a login for the account, for example, right? Because each test applied can be applied by a different professional, that's it.

That's right, right?

So he would have to log into an account, let's imagine he's going to access his email, right? So, just making a similarity. Then he would have to log into the mini-mental account to enter the data for that test that he applied. That would be more or less it, right?

I believe so, we never think like you, right?

No, but that's how it is, because today each professional has a sheet, right? That he is responsible for filling out that sheet, and then he enters his data as professional, the date the test was applied and the data it collected from the person, right? That's how it works.

Yes, that's how it works.

Okay, so that's what we've already thought about, [omitted for review].

Ah, I'm remembering here, [omitted for review], you asked that, I remembered that PENSI, which is an instrument to see participation, right? To make debt illogical, no. What's his name, [omitted for review]?

His name is PENSI.

PENSI?

Yes, I'm also going to write it in the chat, because I've already done it here.

This instrument is to see the child's participation in the community, at home and at day-care, right? In the educational environment. This instrument was transferred to an Excel

spreadsheet, which in a way was how it was digitized, right? Let's say, the instrument. And then, that's what made me remember, because then, to enter, we have to have a login and password.

Oh, yes.

Each of us who uses PENSI in this format has to log in with a username and password. So, if the student is going to use it, they have to log in with our login and password, for example, right?

Something like that is actually a paid instrument, it is not a free instrument. Because if it were free, I think everyone could have their own password and login, right? So, we have to think about that too. But there is this one, right? I don't know if it's interesting for you to know. It's not for making cognitive diagnoses like that. But it has another purpose, but it's in the Excel spreadsheet. So, actually, you, actually, how does it work? You, I think he, you do like a Google Forms, you attach a Google Forms, right? And then, later, when you go to see the final result, you go directly with the entire spreadsheet that you already have.

No, wait, let me remind you here.

It's done in Google Forms, no, you can do it directly in the calculator, right? Not through Google Forms. There's a calculator for Excel, you're going, right? But it already has a friendly face, it doesn't have that Excel face, you know? And then you fill it out and at the end it gives you all the results, a pretty little sheet, with everything ready.

Oh, cool.

Interesting.

The PEDI-CAT.

Yes, there are. So, if we remember, there are some.

Yes, it doesn't need to be directly related to the cognitive part, right? But something that, like, digitizes some test.

Just so we can get an idea of how this digitization of tests is being done, right? Yes, there really is PEDI-CAT, really, which is also like that. Because PEDI-CAT, she opens a sheet, first, for you to fill in the child's personal data. Then you will enter the child's name, age, gender, and whether they use an assistive device or alternative communication device. Whether the child is disabled or non-disabled. After that, you open a second tab, like this, you finished this, you open a second tab. Then you can generate a link for someone to respond, or you can respond to the line online, with the parent or the child. And then it goes on, like this, but the pad depends on the type of answer, it generates new questions. But the mimi-mental isn't like that, right? Because the mini-mental will remain standardized. But in the end it generates a report with all the answers and a graph. I think the pad is just like that, you know?

I think that the sheet, perhaps, this anamnesis information sheet, I think we could even use the pad as a basis. That she has all the information. So, what is it called?

It's "pedicat" that you write, right?

Yes.

Okay. Okay, I'll write it down here and we'll take a look at it too. If you remember anything else after our meeting today, you can tell us, okay? [omitted for review], do you have any questions about these two questions here on the login screen?

The thing is, I thought about doing a kind of way of, I guess, taking care of the patient, right? And along with the anamnesis, would you put the anamnesis along with these forms as well? Before application, and so as not to alter what the patient is going to put in, just to have a sense of what would be necessary, or even to later score the test.

I think that, that the anamnesis, I think it could start with the mini-mental the way it is, then we think about whether to complement it with this anamnesis, or even this sociodemographic data, right, [omitted for review]? Like, keep the test standardization the way it is. The Anamnesis doesn't have any of that, usually we senior professionals do it separately, we have a little file there with the sociodemographic data, with the patient's clinical data, right? We can include, for example, perhaps in this basic description, if it is, what is the diagnosis, if it is PC, if it is AED, right?

I don't know which is the grade, some basic things like that, but that Anamnesis, taking

history and such, I think it would be, I think there's no need to worry about that now. I think that when [omitted for review] said, people, she thinks that the Anamnesis for us is not the same thing as the Personal Health Anamnesis. Our Anamnesis is something very extensive, so sometimes we look for details. When she talks about Anamnesis, it is simply to score the test, to put there first whether it is male or female, but this, this short one, I find it interesting, this is identification data, understand? There has to be this reduction, there is no need to say whether it is right or wrong. It is age, gender, name to then have a parameter of right or wrong, that's it. But for us, this is not an anamnesis, you know? This is identification data. Our anamnesis is history, it's much longer, okay? But I think what you want to talk about is interesting, which is what [omitted for review] had said. These are the basic data.

Great! Cool, can we continue, [omitted for review]?

I'm in.

that she is doing about the use of screens and cognitive development and she said that in this search she found some article. She said, I'll even send it to [omitted for review], you sent it. So, like, there must be, I don't know, right, like, certainly the application here in Brazil, I don't think so, but internationally there must be some tool like that, I believe, right, maybe, I don't know. I don't know, I don't know if [omitted for review], you said you have some experience with the whole application, some diagnostic thing, no. No, here we use a lot of apps for alternative communication or as if it were a visual clue, but it's motor issues, you know? I even did a search here in mine, but I really need to look more to see if I can find it. I also believe that there won't be any, you know [omitted for review]? People don't do anything very involved in this cognitive part, especially when we will look at children like this, always evaluating motor skills much more, we will not have that. I'm going to ask [omitted for review], I'm also going to ask [omitted for review], because I even invited [omitted for review] for this meeting, which is here, right, our interface with the mini-mental, tradition and validation, She says she can, every day except Wednesday morning. Then I don't need to and won't mess with anything, no, it was difficult for each meeting and another one with signs calling. But she told me that when I contacted her, she sent an audio saying that the trend was exactly that, to put the tests in place, right, in this format of such and such. So, and she works with tests, right, cognitive and such, she is a psychologist. So, I'm going to write down the questions that we don't know how to answer and we're going to research and also Let's see with [omitted for review], sometimes she has something to recommend to us.



Okay. If you guys could take a look for us, right, we only found the mini-mental, actually we did a search, only found information about the mini-mental. So, if we find anything else, It's important for us to be able to see, right, what the interface of these other tests is like too, right, digitized. So, I'm going to even write it down here that you guys are going to do some research for us, will help us in this part too, right, the girls will laugh at the literature. Right. So, I, yeah, so we can better understand how it works, right. So, when you, we watched the video and we saw there how it is applied, right. Before that application, there is an application another form to collect demographic data in a more specific way?

Generally, [omitted for review], we do an anamnesis with the family, with the parents, in short, to get to know the child's history. That is an instrument that we use for screening, but we have other associated data, right, the girls?

Yes, the instrument is the same, but we, generally, when we are going to do research, we always enter with a sociodemographic questionnaire, right, but it is something complementary. Because if the mini-mental, it is standardized, right. The standardization hers is exactly that, right.

I understand. So, yeah, but we always have something, right, more, right, [omitted for review].

I understand. So, when scanning it, we wouldn't scan this sociodemographic questionnaire

No. Just the mini-mental. Just what's there. Right. And the basic necessary data, the child's name, the gender, right, the date of birth, simple thing. It's the first question, right, of the mini-mental. It's, that's already there, right. If I explain to [omitted for review], [omitted for review], we filmed the application of the mini-mental with the child there in clinic, the internship students themselves, the student, I don't know if you remember her, she is a PC very light. You can't even see that it's not a PC, you know? It already has a PC, but like, then we told [omitted for review] and [omitted for review] to understand how the application works. Now, perhaps, [omitted for review], because so, we will try to find out how this child's cognitive development is.

Yes. Having an input screen where we could not collect some information from children,

such as age. Let's suppose that she doesn't know her correct age, you know?

I get it. So you kind of want to make an entrance, but I think it's interesting, right? As we get the children's age, perhaps, we have a very small identification, that is before the test is applied. Because it may be that the child himself has this difficulty, that's what we're going to find out, right? Usually, the tests have the date of birth, the age and we have both things, right? The child's name, the gender and the evaluator. That's the basics, the minimum, right, that usually every test has. I see. And the application date, right?

Hi?

The application date, that's right. Right. So, the ones who will enter this data are the health professionals. So, it would be interesting for each professional to have a login to the account, for example, right? Because each test applied can be applied by a different professional, is that it? That's right, right. So, he would have to enter in the account, let's imagine that he will access his email, right. So, just making a similarity. Then, he would have to log into mini-mental's account to enter the data from the test he applied. It would be more or less like that, right? I believe so, we never think like you, right? But it is like this, because today each professional has a sheet, right, that he is responsible for filling out sheet and then put his data as a professional, the date the test was applied and the data he collected from the person, right. That's how it works. So, that's what we've already thought about, right.

Oh, I'm remembering here, [omitted for review], you asked that, I remembered that PENSI, which is an instrument to see participation, right, to make a day of logic, no. What's it called,[omitted for review]?

It's called PENSI.

PENSI?

Yes, I'll write it in the chat, in the chat, because it's already here. This instrument, it's for seeing participation of the child, in the community, at home and in the daycare, right, in the educational environment. This instrument was passed to an Excel spreadsheet, which in a way was the way it was digitized, right, let's say, the instrument. And then, that's what made me remember, because then, to enter, we have to have a login without the password.

Oh, yes. Each of us who uses PENSI in this format, we have to log in without the password. So, if the student is going to use it, they have to log in with our login without, for example, right. Right. Something like that, it's a, in fact, It's a paid instrument, right, it's not a free instrument. If it were free, I think everyone could have it yours, right, the password and your login, right. So, you have to even think about that too. But there's this, right, I don't know if it's interesting for you to know. It is not to make a cognitive diagnosis like this, but it has another objective, but it's in the Excel spreadsheet. So actually, you, actually, how does it work? You, I think that he, you make like a Google Forms, you attach the Google Forms, right. And then, later, when you will see the final result goes directly to the entire spreadsheet that you already have. No, wait, let me remind you here. It's made with Google Forms, no, you can do it directly on the calculator, right, through Google Forms, no. There is a calculator for Excel, go, right, but it already has a friendly face, it doesn't have that Excel face, no, you know. And then, you fill in and in the end it gives all the results, a nice little sheet, with everything ready. Oh, cool. It doesn't need to be directly related to the cognitive part, right, but something that, like, digitizes some test, just so we can get an idea of how this test digitization is being done, right. There really is PEDICAT, really, which is also like that. Because PEDICAT, it opens a sheet, first, for you to fill in the child's personal data, then you will put the child's name, age, gender, whether they use an assistive device, alternative communication, if they have one, if they are a child with a disability or without disability. After that, you open a second tab, like this, you finished this, now open a second tab, where you can generate a link for someone to respond, or you can respond to the line online, already with the father or with the child. And then, it goes on, like this, but the pad depends on the type of response, It generates new questions. But the mini-mental is not like that, right, because the mini-mental will remain standardized. But in the end, it generates a report with all the answers and a graph. I find the pad very, you know, easy. I think that the sheet, perhaps, this anamnesis information sheet, I think we could even use the pad as a basis, that she has all the information.

So, what is it called?

"pedicat", right?

Okay, I'll write it down here, so we can take a look too. And then, eventually, Right, after our meeting today, if you remember anything else, then you can tell us, right? [omitted for review], do you have any questions about these two questions here on the login screen?

The thing is, I thought about creating a way to put the patient's things together with the Anamnesis. Would you put the Anamnesis together with these forms as well? Before the application, and so as not to change what the patient will put, just to get a sense of what would be needed, or even to later score the test. I think that the Anamnesis, I think it could start with the boy as he is, Then we think about whether to complement it with this Anamnesis, or even this sociodemographic data, right, [omitted for review]? Like, keeping the standardization of the test the way it is, right, because there's none of that. Usually, we, health professionals, do this separately. We have a little form there with the sociodemographic data, with the patient's clinical data, right, we can include, for example, perhaps in this basic description there, if it is, what is the diagnosis, if it is PC, if it is AED, right, I don't know, GMFCS, what is the degree, some basic things like that, but that Anamnesis, taking history and such, I think it would be, I think there is no need to worry about that now.

Right. I think when [omitted for review] said, people, she thinks, it's because the Anamnesis for us is not the same thing as the personal health Anamnesis, our Anamnesis is something very extensive, so sometimes we look for details. I think that when she talks about Anamnesis it is simply to score the test, to put there first whether it is male or female, but this one, this one, this short one I think is interesting, this is to give identification, you know, there has to be this reduction, for you to say whether it is right or wrong, it is age, gender, name, to then have a parameter of right or wrong, that's it, but for us this is not anamnesis, you understand, this is identification data, our anamnesis is history, it is much longer, okay, but what you want to talk about, I think it's interesting that it's what [omitted for review] said, it's the basic data.

Yes, and then there are the cut-off points by age, so sometimes she couldn't do it, but for her age, it was fine. Because so much so that one of the questions she asks, I don't remember which one it is, but she asks by age, even the one about the drawing, then I have to give feedback like this, but I think there's one that goes like this, the child has to make the circle, you know, it changes according to age.

In terms of how the questions would be asked, right, whether they would be typed by the child or would they be multiple choice as well?

No, it is, it has to be typed, because multiple choice gives the impression that you are already giving the answer to the child, and then there will also be children who don't read, right, like so, she can't read, but for example she can write her own name. And the only

thing we considered was like, for example, when you ask the child's age and he does it like this, he shows it with his little finger, it was considered, then we need to see if the child would need to, I don't know, make the number 3, or just say the number 3, or point, and we consider it as a point.

I think we'll have to see, when adapting, item by item, right, or [omitted for review]? Because there are things that are simpler, there are things that are more complicated, maybe we'll have, like [omitted for review] said last week, city, city without time, sometimes the child won't be able to verbalize, maybe there have to be options, so I think like this, and then we'll go when validating the test, we'll see if it matches the original test, right, so then, I think that we will have to perhaps set a date and think about item by item, this item here, what is its objective, right, this item that is possible to do in this way that reproduced it closer to the original, so this one here is not, so how can we do it, I think we will perhaps have to go through this stage, right?

Yes, without a doubt, yes, for sure, we did a survey here, a general overview, right, but this will be interesting, including talking about this issue of them having to repeat, right, so for example that question where you ask them to repeat a number, I thought about automating that as if it were a microphone, so there will be a command asking the child to repeat, and then we will have to record this repetition, right, so the idea would be to put, for example, a microphone like the one on Whatsapp, where she would press and repeat the command, right, but we needed to vary it if it would be good this way, right, I think that was a little bit what [omitted for review] was also thinking meaning there with this question.

Yes, also because of the drawings, how would this part look too?

[omitted for review], I think, for example, this one about, right, the order of numbers, right, it's verbal because in our case we are assuming that children are verbal and can speak, but the objective of digitizing is precisely that, those who cannot speak can perform, so I see that since he has to maintain the direct or indirect order, giving them options is also possible, because then I will exempt him from speaking, because he can't do it is precisely because he doesn't speak, so if I'm going to have him there that he has to maintain the order of the numbers, we will have to think and therefore later validate, to have an option that he can, there are four numbers there, he can put the order, just show his little finger, because many, right, some of the most serious patients they will not be able to verbalize. Understand?

So, the microphone doesn't think so, but our demand is precisely because there are some that we know that they understood the order of the numbers, that they can, because I'm thinking much more in the cognitive than in the motor of his speech execution, but they have no way of expressing this, so if I have there that he has to repeat an order of three numbers and I put, I will appear in those numbers for him, he has to say which is the first one the second, the third, also achieve his goal, memorize and repeat this in direct order. In the same, I understand that this, for example, is to see recent memory, so sometimes he doesn't need to verbalize it, he just has to demonstrate that he kept it in his recent memory, he can point with his little finger, I don't know, right, the ones I talk about, they will have to take item by item and see what is behind this question, what is the first cognitive, what is the cognitive function that this domain is looking for, is that really many will not be verbal, so we want to eliminate this possibility, this need that the child needs to repeat verbally, what's behind it is what matters, which is cognition, the cognitive function that's being evaluated, right, that's being evaluated. The name of the body part, can you say it, mom? I'm saying, like this, in this option of numbers, it could have, like we have in alternative communication, numbers from 1 to 10, and then, for example, I say to the child, 2, 3, he learns 2, 3, if he if it is non-verbal, right, if it is verbal, it reflects, like, two groups. The same principle applies to naming the body part, put the drawing there and he points, right, we give the command written on the screen there too, right, in audio form and he points, puts 4 there, like there are children's games, right, Mita is a game that I later send to [omitted for review], it's for children, and we used it in our media intervention program, which is exactly that, so there's a park there where the application, he gives a command, show the big animal, several animals appear, he clicks on the big one, so show the nose, there will be other parts of the body, ear, leg, and he will have to point to the nose, really.

It was good that I talked about the game issue now, right? We were thinking, we were reading an article there, which presented a method there too, which used gamification a lot, right, which is to bring this idea of the game to the case of a test, so we even thought if it would be interesting, right, if we wouldn't be straying too far from the standard method, too, to bring this idea of the game to Mini-Mental, and then make this application of this test a little more playful, right, so we wanted to see what you think. I also don't know if we're straying too far from the standard, right, which is my concern, that's why we are, like [omitted for review] said, right, it's important that we schedule a meeting to discuss topic by topic to see if we're not straying from the standard of the test, right, which is what we can't stray from, so I don't know what you think, if it would be interesting for us to try to bring a more game-like design to Mini-Mental.

When it comes to design, I think that design, like, having an extreme screen for it is super cool, I don't know if it's appropriate and if it can generate some frustration, because in the game we always work with feedback, right, so there are the applause, there are the little balloons, some they have verbal feedback, congratulations, and then I think it wouldn't be good for the test due to the frustration of some not being able to do it, but bringing the colors of the image, the colorful animals, and then I can suggest some applications for you, so you can see how the colors they use are in a children's application, right, that we have already implemented, and I think that's really cool, like, bringing the image and then we will, in a later stage, we will compare this application with the normal application that we have here, right, but I don't see a problem in putting it on the body part, putting the body part in color, which is more interesting than just leaving the drawing black and white, okay, I don't know what others think, but the goal is for him to identify the body part, right, the fact that it is black and white, or the fact that it is colored and closer to reality, does not change, it even makes it easier to identify, right, being closer to reality, but he identified it, he fulfilled it the objective, right, is a more interactive screen, today, people, this boy, everything about them is interactive, beautiful, right, why wouldn't the test be too?

Yes, of course, we accept it, so, [omitted for review], later when you can pass it on to us, then we'll take a look at these games, these applications, to get an idea of what design for children is like, right, I think it'll be cool, because, well, I noticed a lot that the application of mini- men, then, has a professional part try to play, right, try to involve the child, try to make it, like, not like a very formal test, right, so, I think we can also bring that here to, to our app too, what's up, [omitted for review], no, sorry, [omitted for review], do you want to continue?

Sorry, [omitted for review], do you want to continue here with the test calculation?

It's about the test calculation, like, we would count the time the child took and how the Mini-mental test calculation is done nowadays.

Want to talk, [omitted for review]?

So, there are some alternatives where the child is scored from 0 to 5 points. There are other alternatives where the child is scored up to 3, and there are some where the child is scored 0 or 1. It will depend on the question, for example, that question about numbers, it has a higher score compared to the name question.

And would we count the time to combine with the calculation or not?

No, at least we never counted the time, it's not just whether the child can or not perform that activity and how she performed it, you know, the numbers, she said the first sequence correctly, like, 2, 3, she goes there 2, 3, then I say 3, 5, 6, then she says 3, 4, 6, so she doesn't score on that, but she can score on the third alternative, you know? Then she will make 2 points instead of making 3.

Is there any other way of applying the mini-mental today, I don't know if you asked this question? Like, I'm not good at asking so many questions, but okay, nowadays, like the child I can't write or anything, is there any adaptation for her?

No, because, for example, when we applied it to children aged 3 to 5, when the child couldn't write, she could verbalize it, you know? What's your name, the child speaks instead of writing, so we considered it, but, for example, at drawing time the child is asked to draw, but that also depends on age, right, little children draw a line, older children will do.

another drawing a little more complete.

Sorry to be such a pain, but then this will take into account cutoff points.

So you have 37 points there, I even ended up taking advantage, I put here for you the names of the instruments and I put here, look, this first one was [omitted for review], there, and [omitted for review], they are the Indians who validated the test for children, so it worked from 3 to 14 years old. Here in Brazil, [omitted for review] and [omitted for review] did it with children from 5 to 16 years old, so we have validated data, in [omitted for review]'s study we worked with younger children, [omitted for review]'s age, I think 4 years old, right, [omitted for review], 3 years old, and we used cutoff points then from him.

For example, a 3-year-old child doesn't need to score 37 points, he can score 24, which is what is expected for his age.

Just like there is, I'll send you a little video, if you want, talking of these cutoff points for children with CP, there is also the cutoff point, okay, a child which is more serious, the cutoff point is lower, but there is always that doubt, could it be that the child is because he



was unable to use his little hand and verbalize and such, right, but there are more or less, according to [omitted for review]'s study, these cutoff points, so that's it, so if the child was unable to do it, sometimes it is because of age, so this is taken into consideration at the end of the test, right?

And, true, can you get any, any video of [omitted for review] doing the mini mental or some child that you can't verbalize by doing?

I can do it here, I have children, but I have the child with the foot, right.

Do you have access to any IGMFCS 4, 5 children, who have preserved cognitive abilities, so we think they do, right?

No, I only have AED, a child with AED, who has preserved cognitive function and has alternative communication skills.

I understood.

Because we can, because we have this problem that at the moment we are not on vacation, you know? So if there are a lot of people, and I'm like, I'm going to take vacation next week, I'm going to stay for two weeks, so I can't, right, if there are a lot of people, I'm going to have difficulty, but if you can wait, when I get back from vacation, we can maybe even arrange to go to [omitted for review]'s house, until I go back to the internship, right?

Did it have to be nonverbal, [omitted for review]?

Hi?

Did it have to be nonverbal?

Yeah, for us to see what the difficulties are nowadays, like, like [omitted for review], as far as I remember, he can't do the... he can only squeeze, right? Yeah, yeah.

So, it would be even better for us to see what he puts in the digital version. Also... Level 1 and level 2, but then the motor skills are good, right?

Good.

But I can... If it's something like that that you need, then I can look with [omitted for review] in the East, anything, I can go there and see if there are any children and try to apply. The problem is that sometimes we don't even apply it, because they can't handle it. For example, [omitted for review], he doesn't speak, he doesn't use his hand, so we practically can't do anything on the test, you know?

Because the test, either the child has to verbalize, or the child has to write, or fold, that is, he can't write, he can't fold, so he will practically get zero on the test, you know, [omitted for review]?

Yeah. So, there's also this, is it worth applying, since it won't do anything?

Yes, I wanted to see what the main difficulties are to have a better view of the test, right?

Do you want more, do you want me to apply this test, or are you going to see what the difficulties are? Yes, I wanted to see what the main difficulties are to have a better view of the test, right? What needs to be improved, what doesn't make as much sense to focus on, what needs to be focused on more.

I understood.

What is it, looking at the test here, what day is it today? He won't be able to say, because he doesn't verbalize it. What month is it? No, he may even know, but he has no way of verbalizing it. Thinking about the test as it is today, on paper, right, what year is it? He also won't know how to verbalize, he won't know how to write, what day of the week is it? He won't ask that question either. What time is it now? Right, where are we, where is this place, and you understand, he won't be able to do anything about it.

Show a watch and ask the interviewee to tell you the name, what do you think, [omitted for review]? You who are more used to applying.

Yeah, I also think that most of the answers are going to be, like, negative, you know? Because of this, because of the difficulty with motor skills and also because of these speech issues, the child cannot verbalize it, he may even know, but he will not be able to. He will

not be able to bring up most of the questions, so it will be more than zero.

Yes, and then we realize the issue of motor skills, which is important, right, because, for example. I have a child here with autism, nonverbal, who would be able to do the minimal. Because I use alternative communication. So she can write with her little fingers, if she were to pick up a pen she wouldn't be able to write anything, you won't be able to draw, you won't be able to do anything. Yeah, but PC, like, I can't see doing it. Unless it was a GMSS3, right, a little lighter than the one I showed

For you, she is PC, but she is so light that maybe you noticed, right? She is, she is GMSS1, so, like, she has difficulty jumping, running, she walks, like, a little differently, in quotes, but her difficulty is running, jumping, she has no difficulty at all in using her hand. She's very shy, but she talks, right, so, like, she's really quite light, right? We have, like, that it's already level 2, almost 3, like, you know?

I could apply it, so I don't know.

Maybe it would be more interesting, [omitted for review], for them to see the difficulty, but a child who really does it, at least tries to do something. Because in [omitted for review]'s case, I even feel sorry for him, because he's not going to do anything, right? [omitted for review], I think he'll be a good kid for us to test your prototype on, right, to see if it's reaching this audience.

But could you, [omitted for review], film, apply and film a child 3, like that, more or less?

Yes, I can

[omitted for review], do you have any other... questions?

No.

Are you okay now?

All good.

Well, girls, I think we got an idea here, at least to mature more.

Our idea was much better than what we had imagined, right?

So, what we have here now, we will analyze and start sketching screens in a way that we

call low-fidelity screens, right, which are... it's a sketch with paper and pen so we can start to mature our prototype further, right, we still will not create an interactive prototype.

And then my suggestion is that we schedule a next meeting, right, Professor [omitted for review] said she will be on vacation in the next two weeks, so I think it could be in three weeks as soon as you get back, right, [omitted for review], so we can go over the Mini-Mental item by item.

By then, [omitted for review] and I will be able to sketch out some screens, think a little more too, and then we will be able to better discuss this issue of going through item by item. It will be really important for us, so we know the objective of each issue and we can see how we are going to digitize it, right? So my suggestion is that we meet as soon as Professor [omitted for review] returns and then we can just discuss item by item.

What do you think?

[omitted for review], perfect.

That's it.

So, [omitted for review], if you can apply it to a patient in that time frame, okay?

If you have any other ideas, right, maybe after our conversation another idea comes up, you identify another application, right, [omitted for review] will pass it on for us there are applications for children, so if you can send them to us, it will be interesting.

Uhum.

Yes, we, if you find it interesting, what we can do too, [omitted for review], is record a little video, how do you open the ipad there, of a good child, show it to her? Can I try to do it here?

Great.

We, like, are a film, we show it, we open it here, we do it like this, and then it works like this, it generates this, which might be interesting for them too, right?

Yes, definitely, without a doubt.

I can do that, yes.

And then I'm going to try, just so you can see, what the issue of using the non-verbal child answering the mini-mate questions via tablet would be like, which I think this can bring for us an idea of how it should be arranged, like this, you know?

Uhum.

In the question of the name, having the entire alphabet, these things, like that, I'll show you. I think I have a little patient who will be able to do it well.

Perfect then.

Jewel.

Well, do you want to add anything? The group?

Do you think there are already too many groups? Because everyone posts there, you decide. I think it was good, like that.

Could it be.

It's even good to bring [omitted for review] into the group, right, because sometimes she's left out, right, so she can participate, I think it will improve communication. In fact, [omitted for review], I sent you an email, it's a presentation on the cognitive functions of the children with cerebral palsy and I talk about the mini-mental, which you can sometimes pass on to [omitted for review], to [omitted for review].

I think it might help.

Perfect,  
omitted for review