

**LILY BOND:** Welcome everyone, and thank you for joining this webinar entitled "National Research Results - How Different Student Subgroups Use Closed Captioning." I'm Lily Bond from 3Play Media, and I'll be moderating today.

And I'm joined by Katie Linder who is the Research Director at Oregon State University's e-campus research unit. And she is the head researcher on the study we're talking about today. And with that, I'm going to hand it off to Katie, who has another great presentation prepared for you.

**KATIE LINDER:** Hello, everyone. I want to make sure that you can hear me and also that you can see my slide deck. If you can, can you please go ahead and raise your hand so I have a sense? Great. I see lots of hands being raised. Wonderful.

I'm really excited to share these results with you about student subgroups' use of closed captioning and transcripts. This was one of the most requested pieces of information from our first webinar. People really wanted to hear about this subgroup analysis. So I'll be able to share more details about that with you today.

If you did happen to see our first webinar on the student report, you will have a little bit of a review, because I need to contextualize what I'm sharing with you. But I think it might just serve as a little bit of a [INAUDIBLE] as well.

As Lily mentioned, if you do have questions about particular slides, please do reference the number that's going to be in the lower right of the slide deck so I can reference that as needed. I've also got our Twitter handles listed on the bottom of this slide if you want to reference any of those.

So in this presentation today, I'm going to do three main things. One, I'm going to provide a little bit of a context about this study so you have a sense of where the numbers are coming from and some of the respondents that we had. I'm then going to share some of the data and results of the study with a specific focus on the student subgroup analysis that we were able to conduct. And then I'll end with talking about some of the takeaways based on the data that we found in this study.

To give you a little bit of a sense of the study origins, we had, here at Oregon State University

E-campus Research Unit, done some earlier studies on student use and perceptions of closed captions internally to e-campus and had done a survey of our own students and had also conducted some experimental studies in our classrooms to get a sense of how students were using closed captions and whether or not that helped their learning.

We then took that study and scaled it out to this national study that's been co-sponsored and supported by 3Play Media. We have information about this original study on the E-campus Research Unit website if you are interested in that. I'm also happy to provide information via email if you want to be in touch with me.

For this particular national study, we had several research questions where we were looking at students' awareness of the availability of videos' closed captions and transcripts and how they're using closed captions and transcripts, why they're using them, and how are they using them in particular to support their learning. We also wanted to know to what extent do various student populations perceive the use of video closed captions as potentially valuable to their learning, and this is what we're really going to focus on today when we look at the student subgroups.

Just as a reminder, the study report is now available. It's posted online, and we will provide a link to that. You will also get an email link as well following this, so you can follow up on that. But everything that I'm going to be talking about today is drawn from this study report. So if you plan to cite it or you want to look at anything in more detail, you can definitely follow it there.

In terms of who was involved in this study, we were able to recruit by emailing a little over 3,700 institutional representatives and announcing the study to them. We also recruited via Twitter and word of mouth. We hosted a series of webinars describing the study, and then institutions that chose to participate in the study received recruitment materials for the student survey. Then they then helped us share out those materials to their students for distribution.

When students consented to take the survey, they were told that their institution was partnering with both Oregon State University and 3Play Media. And student participants were asked to complete a 46-item online survey. They had the option at the end of the survey to provide their email to be entered into a raffle for Amazon gift cards.

We had an eligibility requirement that participants be over the age of 18. So we ended up

having a total of 15 institutions who agreed to assist with recruitment. And from those institutions, we had a little over 2,800 students respond. After we did data cleaning, we were able to pull data from a little over 2,100 students who participated. And that's what is included in today's analysis and in the report analysis overall.

It is important to note that as we were reaching out to different institutions, there was some confusion, I think, about who we were trying to survey. And many institutions definitely only were thinking about closed captioning in relationship to student accommodation. And because of that, some only sent out the survey to students who were receiving captions for accommodation.

You'll see this reflected in the response rate, so it will break out how many students we had in the pool that had disabilities or had registered disabilities. But I think you'll also see that we had a pretty diverse pool overall in terms of who we were drawing from.

This is a list of the different schools who participated. About 20% of the schools were private, and 80% were public. And about 20% of the schools were two-year schools, versus 80% that were four-year.

34% of the schools were from the midwest, 27% were from the west, and then 13% each were from the northeast, the southeast, and the southwest. So we also had a nice geographical spread in terms of our student respondents.

We also wanted to get a sense of some of the demographics of who was responding. And so we asked about things like their year in school. Almost 50% of respondents are juniors and seniors. And almost 83% are undergraduate students.

We also found-- this is our subpopulations that we were able to break out. We had 36% who were adult learners. And if you have a really good memory, you'll remember that this number was different in the first webinar. We actually had it switched.

And it was saying we had 63% I think or something like that. So this is a new and correct, accurate number. We had 36% adult learners respond.

We had almost 90% who had English as a first language. Almost 30% were first generation. 39% were Pell-eligible. We had over 2/3 who identified as female. And about 3/4 who identified as white.

We also asked for a range of information around disability. And you'll see here that we had 30% who always or often struggle with maintaining attention in class, and then almost 50% who sometimes struggle. So we had over 75% of our respondents who struggled to some extent with maintaining attention in class.

What's interesting about this-- a number I'm not going to include in this slide presentation, but was included in the first webinar and then also is in the report-- is one of a number one reasons for students to use closed captions is that the captions help them to focus. So that's not too surprising, given these numbers.

We had almost 20% of students who responded reporting having some difficulty with hearing and about 11% who had difficulty with graphs and charts. Almost 40% had some difficulty with vision. We did not differentiate this out just for students who might wear glasses and not require another kind of accommodation. So that could be a larger number because of that. And then we had almost 10% who had a diagnosed learning disability.

In our pool, we had almost 11% reporting having some other disability. About 13% were registered with an office of disability services on their campus. And then we had about 11%-- a little more-- require academic accommodation in their classrooms.

We also asked how students were taking courses. And we had a little over half of students taking courses primarily online, and then a little over 1/3 taking all of their courses face-to-face. So we had a pretty nice balance here of the different modalities that students were using in their courses.

Pretty importantly, we had students reporting that at least one of their courses had videos. Almost 100% of students were experiencing videos in at least one of their courses. And so that's a pretty good indication that this is something students are dealing with on a really regular basis.

We also asked students about the helpfulness of videos for them in their coursework. 46%-- a little more-- of respondents found it extremely or very helpful for their courses to include videos. And then 51.4% said that videos are moderately or slightly helpful. We broke this down for our student subgroups, and we found that the percentage of respondents who found videos extremely or very helpful was higher for first generation students, Pell-eligible students, adult learners, students who have difficulty with hearing, and students where English is not their first language.

So just to remind you, that original number of who found it extremely or very helpful was 46.2%. So these numbers are pretty significantly higher, as much as 5%, all the way up to 12% higher for the different subgroups.

Now this number was lower for other kinds of subgroups-- students who noted that they have other disabilities, who were under the age of 25, who had learning disabilities, or received an academic accommodation. There was a lower percentage of those students who found videos extremely or very helpful. So again, that original number for the entire group was 46.2%. So you can see the group that was the most different from that, in terms of being lower, was the students with other disabilities.

We also asked about just availability in general of closed captions and found that for students who said that all, most, or many of the videos in their courses had closed captions, it was a little less than 1/3. But 27% were not sure. And then 35% always or often use closed captions when it is available to them.

We also asked how they can tell if a video has closed captioning as a feature and also if they know how to turn on that feature. And we did a little bit of subgroup analysis on this as well, which I'll get to in just a moment. But you'll see that over half of students know how to tell if a video has closed captions and also know how to turn that on. About the same amount of students don't know how to tell and don't know how to turn it on-- about 15%.

We asked these same questions about transcripts. And we found that 43% of students said that none are available-- no transcripts are available for them. And 11.2% said that all, most, or many of the videos in their courses have transcripts. That 11.2% is compared to that 20-- for a comparison of direct all, most, or many-- for closed captions, that was 28.8%, so more than double the availability of transcripts.

We had a little over 63% say that transcripts are never or seldom available to them. So those who are using them always or often, they said 19% always or often uses the transcripts that are available to them. This was compared to 35% for closed captions, so again, almost double.

When we look at these comparisons, I think that it becomes a little bit more clear that we're seeing almost double the numbers for closed caption use than we are for transcript use. And we'll look a little bit more later on at some of the statistical correlations we were able to run on

this, especially in relationship to how helpful these things are for students.

When we compare the availability, you'll see that there's almost four times the percentage of respondents who said that no transcript was available than said that no closed captioning was available. About a quarter were not sure about closed captioning. And almost 1/5 were not sure about transcripts, so still a large number of students who just aren't really aware of what's going on here.

So for the students who talked about not knowing how to tell if a video has closed captioning as a feature, the highest percentage of that group was students who have difficulty with visual representations, which may not be too surprising for us when we think about that. Similarly, it was that same group who reported not knowing how to turn on closed captions. The highest percentage who reported that were students who have difficulty with visual representations, and then that was followed with students who have learning disabilities.

Overall, we had about 35% of respondents note that they always or often used closed captions when they are available. In response to that same question, 26% of the whole group said that they never use them. So we broke that down by our student subgroups, and we found that the percentage of respondents who always or often use closed captions when they were available was higher for students with other disabilities, for students with English as a second language, for students registered with an office of disability services, for students with academic accommodations, and for students who have difficulty with hearing.

Just as a reminder, the original number for the whole group was 34.9% who always or often use. So you can see that we have some pretty significantly higher percentages here for the different subgroups who are always using this or often using it.

For student use of transcripts, we had almost 19% say that they always or often use transcripts when they're available. And then we had about 55% say that they never use transcripts when they're available. Again, we broke this down by our student subgroups.

We found that the percentage of respondents who always or often use transcripts when they are available was higher for students with other disabilities, students who always or often have trouble maintaining focus, students who have English as a second language, and adult learners. It was also higher for students with learning disabilities, students registered with an office of disability services, students who have a difficulty with visual representations, students who are receiving academic accommodation, and students who have difficulty with hearing.

So the majority of our students subgroups were higher in terms of the percentage who are always or often using transcripts when they're available. This number was lower for students who were under the age of 25 and for first generation students. And again, just to remind you, that original number was 18.7% for the group as a whole.

We also looked at students with disabilities versus students without disabilities. And we found that students with disabilities do use closed captions more often than students without disabilities. But the size of the difference was small when we did our statistical analysis. It was also the same that students with disabilities use transcripts more often, but the magnitude of the difference was small.

Overall, we had about 1,500 student respondents who did not self-identify as having difficulty with hearing. And of those, a little over 30% used closed captions always or often. A slightly smaller proportion reported never using closed captions. So we found that overall, over 70% of survey respondents without hearing difficulties are using closed captions at least some of the time.

Respondents were also asked about whether they perceived closed captions and transcripts as being helpful to their learning. So overall, closed captions were perceived as more helpful, with 59.1% of respondents noting that closed captions were either very or extremely helpful to them. Comparatively, there were 28% of respondents who noted that transcripts were very or extremely helpful. So overall, we saw that helpfulness was more for closed captions than for transcripts.

We also broke this down by student subgroups. And we could see that for very or extremely helpful, in regard to closed captions, that number was higher for students with learning disabilities, adult learners, students who have difficulty with vision, and students who always or often have trouble maintaining focus. And again, that original number was 59.1%.

We have other groups as well who had this as a higher number for them-- first generation students, students who have difficulty with visual representations, Pell-eligible students, and students with other disabilities. So again, the original number is 59.1%. So for some of our higher groups, you'll see that this number is 5% to 6% higher than the original number.

What's interesting here is that you are seeing students like Pell-eligible students, which may not be a typical subgroup that you would necessarily think of as being helped by closed

captions. They're not falling into any of the disability accommodation categories, for example.

There are other groups where this was higher. It included students registered with an office of disability services, ESL students, students receiving academic accommodation, and then the highest, which is perhaps not too surprising, is students who have difficulty with hearing. So the highest group here of students who have difficulty with hearing are a full 12% higher than the original number of 59.1% for the group as a whole.

Now this helpfulness was lower-- the percentage was lower for the group of students who are under the age of 25. So that original number was 59.1%. Only 57.7% of students under the age of 25 found closed captions to be very or extremely helpful.

Of the students who indicated that they use closed captions often or always, we also ran some analysis and found that there was no significant difference between how helpful students with disabilities found them compared to students without disabilities. So we did not find a significant statistical difference here.

Now we also looked at the helpfulness of transcripts. And if you can remember back to an earlier slide, the original number who found transcripts to be either very or extremely helpful to them-- that number was 28% for the group as a whole. So the subgroup analysis found that for particular subgroups, this was higher-- students who always or often have trouble maintaining focus, students with learning disabilities, adult learners, students who are registered with an office of disability services.

It was also higher for students who have difficulty with hearing, students who have difficulty with visual representations, students where English is their second language, and students receiving academic accommodation. So again, that original number was 28%. So the group that found this to be the most helpful-- the students receiving academic accommodation-- was almost 10% more than the group as a whole.

Now this number was lower for students under the age of 25. So you may be noticing a pattern here that our students under the age of 25 were lower both for the helpfulness of closed captions and for the helpfulness of transcripts. Of the students who indicated that they use transcripts often or always, there was also no significant difference between how helpful students with disabilities found them compared to students without disabilities.

So this is just a visual representation of how students talked about the helpfulness of closed



captions versus transcripts. The blue line, it represents captions. And the yellow line represents transcripts. The blue line, that starts on that 1.4% on the left side of the screen.

So the total numbers that we're working with with this were different. So we did this in terms of percentage. So for closed captions, we had a little over 1,500 students respond to this question. And for transcripts, we had almost 1,900. And one of the interesting things you'll find is that we had only a little over 1% of the respondents say that captions are not at all helpful to them. And you'll see that the majority of students-- over 50%-- found them to be very or extremely helpful.

When you look at the transcripts line, you'll see that almost a third of students found them to be not at all helpful to them. And then you see a decline in helpfulness. And you have 17% for very helpful and then 11% for extremely helpful. And these numbers are significantly lower than what we're seeing for closed captioning.

And so one of the things that we were interested in was trying to find out if there's a relationship between the availability of these different tools for students and how they perceive their helpfulness. So we asked that question first about closed captions. And we found that the availability of closed captions made a significant difference in how helpful students found them to be, and the difference between the groups was large.

So students who were unsure if captions were available caused there to be significance based on the availability of captions. When the students who were unsure were removed from our analysis, there was no longer a significant difference in how helpful students perceived the captions to be. So basically, what that means is our numbers are getting a little skewed because students aren't aware of their availability. And because they're not sure if they're there, well, they're not going to find them to be helpful. And so we found this to be true for closed captions.

We also found this to be true for transcripts. The availability of transcripts made a significant difference in how helpful students found them to be. And the difference between the groups was large.

So for students who were unsure if these tools were there, it impacted what they would say about their helpfulness. And that makes sense when you think about how students cannot really use a tool if they don't know where to find it or where it is. And they're going to say that those things are not as helpful to them.

We also looked at hindrances for both of these things. And we found that for closed captions-- students who indicated that they used closed captions often or always-- there was no significant difference between how much of a hindrance students with disabilities found them compared with students without disabilities. And there was not a real noticeable difference in the size of those groups.

So we tried to break out if there were different things that these different populations of students were noticing in terms of hindrances for this. And we did not see a difference there.

However, for transcripts, we did see a difference between how much of a hindrance students with disabilities found them compared with students without disabilities. That difference was small. But this also could be indicative of the fact that transcripts are not as widely available, at least according to the students in our study.

So often in the hindrances for transcripts, students noted that they're just not there, and that was the hindrance. It wasn't necessarily something about the transcript itself. It was the fact that it wasn't available to them.

So some of the takeaways that I want to point out from this study that I think are significant is that over 70% of students who use closed captions and transcripts in this study did not self-identify as having a hearing-related disability. And I think we often assume that students who are using these tools are using them for accommodation purposes. And while there are certainly other accommodations used for other disabilities that would utilize these tools, we also had a significant number of students without disabilities who were using these tools also.

The difference in the helpfulness of closed captions and transcripts for students with disabilities and students without disabilities is not significant. And again, I think this is something that we may assume-- that students with disabilities find closed captions and transcripts to be more helpful to them than other groups. And that was not something that was represented in the study.

We also found that the helpfulness is higher for a range of student subgroups, even if it's not significantly higher in terms of statistical analysis. We did find that when we broke out the percentages of who said that closed captions and transcripts were helpful, in some cases, almost every single subgroup we looked at found them to be more helpful than the general population as a whole. So that was certainly very interesting.

It is also interesting to note that the availability, or lack thereof, of closed captions and transcripts does have a significant impact on the helpfulness of each tool. And again, that seems common sense, but it's something, I think, that makes a good argument for having these tools to be available. They cannot help students if they are not there.

So I'm going to pause here and see if folks have any questions. And then I'm happy to share some more information about our upcoming study report that's going to be released next week.

**LILY BOND:**

Thanks, Katie. There are definitely questions coming in. I want to encourage people to continue typing their questions into the Questions window of the Control Panel.

So the first question that we have here is, on slide 8, it looks like about 700 responses were disqualified from the data. What did you learn about the questionnaire vehicle or any other accompanying documents that made you disqualify these students?

KATIE LINDER: That's a great question. So as we were cleaning the data, the main thing that we were really looking for was lack of response. And we had a certain cut-off point of if we had students who maybe answered the first couple of questions, but then didn't respond to anything else-- we just couldn't use their data. It was not useful to us.

And there were certain areas where we would say-- at the very least, if we had information about their demographics and they answered some questions about their use of closed captions and transcripts, we kept that in the pool. And so you can see in the report we have different ends for different questions, just based on how many students responded to things.

But the main thing, I think, is that this was a longer survey. It was 46 items. We did really try to get at both the closed captions and the transcripts. So it wasn't too surprising to me that we had students and respondents that just weren't finishing it. And that was the biggest reason that the data was cleaned and we had that many that we removed is that they weren't complete responses.

The other piece, too, is we certainly had students, I think, who gamed our system a little bit and wanted to be in the raffle, but didn't necessarily want to respond to the entire survey. So they made their way through the survey so they could enter into the raffle, but only answered the questions that were required. And we did not require answers to absolutely everything.

So that's, I think, a couple of the reasons. But the main thing was incomplete data, which wouldn't have allowed us to do the kind of analysis that we needed to.

**LILY BOND:** Thanks, Katie. Someone else is asking, were the learning disabilities claimed by the students reported individually, or did you get this info from the Office of Disability Services?

**KATIE LINDER:** That's a great question. So all of this data is self-reported. And so what we asked on the learning disabilities question was, have you ever been diagnosed with a learning disability? Not just, do you have one?

And so the students responded of whether or not they had been diagnosed with a learning disability. None of this information that we requested from students was cross-checked in any way, in part because we wanted anonymity with the study. And so even with some of our qualitative data, we were very careful with students who self-identified with having very particular kinds of disabilities that we made sure-- because some of this data was returned to the schools. That was part of our agreement with them for helping us recruit.

And so we had to clean some of the qualitative data to make sure that students' identities were protected. So for that reason-- as one of our reasons of many-- we did not connect it back with the institution. But we did ask for a formal diagnosis.

**LILY BOND:** Thanks, Katie. Another question here-- did you see any crossover between students who struggled with maintaining attention and students who identified as having other disabilities?

**KATIE LINDER:** We did not. I worked with a couple different stats consultants on this particular piece of this study. And we basically all played with the data in a range of different kinds of ways. And that was not something that jumped out to us.

I'd have to go back and look at our specific analyses to see what are the kinds of things that we ran that would really get at that question. But it was not something that was significant enough that it made it into the report.

**LILY BOND:** Thank you. Another question here-- on slide 38, it looks like only 71% of students who have difficulty hearing said captions were helpful. Do you have information about the other 29%?

**KATIE LINDER:** Let me look at my slide here. So for that particular slide, we asked if captions were very or extremely helpful. And so these were the respondents who rated captions as very or extremely helpful.

They did not necessarily rate it as not helpful. There were actually two other categories. I think it was somewhat helpful or a little helpful, and then it was no helpful at all. And so for this population-- for students who have difficulty with hearing-- a little over 70% said they were very or extremely helpful to them. But they may have also answered that they were helpful to other degrees.

And the overall percentage of students who found them to be not helpful at all was only 1%. So I would say that this population is probably close to 100% finding them helpful to some degree. But 70% found them to be very or extremely helpful.

**LILY BOND:** Thank you. On slide 41, someone is asking, what were the subgroups that were below the overall average for how helpful captions are perceived to be? And why do you think those numbers were low for those subgroups?

KATIE LINDER: Sorry, is this the transcript question?

**LILY BOND:** Yes, it may be.

KATIE LINDER: Slide 41-- so if I look at slide 41, this is about who was higher for having transcripts being very or extremely helpful. And the only group that was lower for that number was students under the age of 25. And they were also lower for the helpfulness of closed captions as well.

So every other subgroup that we looked at was either equal to or higher than. We had eight different subgroups that were higher than for the helpfulness of transcripts.

**LILY BOND:** Great. Thank you. Yeah, they were asking what groups were lower. And it looks like there was only one then.

KATIE LINDER: Yes, there was only one.

**LILY BOND:** And speaking of students under 25, someone was asking, what was the percentage of students under 25, and why do you think they were less likely to use closed captions?

KATIE LINDER: So the percentage of students under 25-- I'm just scanning back through with slides in front of me so I don't give everyone vertigo as I scan back on my screen. So we had 36.3% who identified as adult learners, which means that we have about 63.7%-- I think that's right-- who identified as students who were under the age of 25.

And then what was the second part of that question, Lily?

**LILY BOND:** Why do you think they were less likely to use captions?

KATIE LINDER: I think that's a great question, and I really don't know. That's something I don't know. I think that it's possible-- I can hypothesize some different things.

Some of the adult learners that we heard from said things like they are raising small children. And so they use things like closed captions and transcripts to watch videos when students are sleeping in the same room. Or they're often in spaces where it's very quiet, and they can't play video without a headset or something like that.

So there are definitely some environmental reasons that we might see a difference between those two groups. But it was not something that was very clearly coming out in the qualitative data that we looked at as to why that particular subgroup was not necessarily utilizing them as much.

But the numbers for that-- just to go back-- so for transcripts, the original number was 28% for the group as a whole. And for students under the age of 25, it was almost 25%. So it was about a 3% difference.

For closed captions, the original number was 59.1%. And for students under the age of 25, it was 57.7%. So we're talking less than a 2% difference for that group from that group as a whole. So I don't think it's that significant. It's just that group was lower when you look at the number for the group as a whole.

**LILY BOND:** Thanks, Katie. That's helpful. Someone else is asking, could you explain what you meant by hindrances? I'm not clear on how captions and transcripts would be hindrances, so I didn't understand the study's questions.

KATIE LINDER: Great question. So this is something that we actually go into pretty significant detail in the report. We also talked about it on the first webinar.

So we asked students-- because we asked them about helpfulness, we also wanted to ask them if there was any reason why closed captions or transcripts would be hindrances for them. And we had students, for closed captions, they commented a lot about things like if they're blocking things on the screen, that's a hindrance. So if they take up too much room on the

screen and they block important information, or if there's typos, if they're improperly synced with the audio-- those kinds of things were what students noted as hindrances for closed captions.

For transcripts, students noted things like they weren't available at all. They noted things like typos. They noted things like the kind of formatting of the transcript was not helpful to them because it was just these huge blocks of text.

And they noted things like it was difficult to print them out and to find time and resources to go and print transcripts if they wanted to have them in print form. So we actually allowed students to identify a range of hindrances in their qualitative responses. And those things are all broken out pretty specifically in the student report.

The other thing that's interesting, though, is that those hindrances were really significantly less. We had a lot more comments about the helpfulness. Qualitatively, I think we had 900 comments or more-- maybe 1,200-- for the closed captions. And then for the hindrances, it was like 100-- less than 150 comments. And some of those comments said things like, it's not a hindrance.

And so in general, we saw students finding closed captions and transcripts to be significantly more helpful than they found them to be a hindrance. We talk about in the first webinar-- and this is also included in the report-- that the good thing about the hindrances that the students talk about is that a lot of them are something that's fixable in some kind of quality assurance.

So if you're including the creator of the transcript or the closed captions in looking at what's been created, they're going to notice if there's typos, if people's names are spelled wrong, if the audio is not synced properly, if it's blocking important information. If you have a kind of quality assurance measure of any kind, it might catch some of those things. And they're definitely fixable.

So I would say if you're interested in more specifics, and especially on sample comments related to hindrances, check out the study. And then you might also want to look at the first webinar recording as well.

**LILY BOND:**

Thanks, Katie. And there's a link to the student study in the Chat window. Along the same lines, someone is asking, in regards to the quality of the transcripts and captions, did those people who made comments about poor quality-- were you able to correlate those with the

extent to which captions were useful?

KATIE LINDER: OK, let me think through that question. I think the simple answer to that is no. The main correlation we were able to make was just between availability. That was where we saw significance.

Because a lot of what we talked about in terms of quality was in the qualitative, I think the numbers were probably too low to be able to make some of those connections and correlations. And I'm just kind of thinking through right now the analysis that we did. And I'm not sure that we looked at that specifically.

I think that the availability of both of these tools was something that jumped out immediately when we were looking at the statistical analyses. So that's an interesting question that I'll make a note of that and maybe go back and look at that a little bit.

**LILY BOND:** Thanks, Katie. Someone else is asking, do you know how many Pell-eligible students did or did not have disabilities?

KATIE LINDER: That's a really good question. We could certainly run the analysis to find out. But I don't have that number right in front of me. So I would say if there's real interest in that, maybe email me, and I can follow up and make sure we get that number to the folks who might want to use that number.

**LILY BOND:** Thanks. Someone else is asking, do you have any thoughts on why the percentage of students with visual impairments rated the usefulness of captions so highly?

KATIE LINDER: Yeah, I think that's a really interesting question. I think that goes back to an earlier comment I made about we did not distinguish with visual impairments the difference between students who were blind and students who just had glasses that they wore and also, students who had visual impairments and required some kind of academic accommodation versus students, again, who just were wearing glasses or something along those lines.

So I think that that may be part of it is that we had a relatively large amount of that group that wasn't necessarily seeking a kind of accommodation or didn't have such a low level of vision without the use, or with the use of glasses, that it made a difference to them. But it also wasn't something that really came out in the qualitative comments. And I think you'll see in the numbers that the transcripts were more helpful to that group than the closed captions were, which may indicate use of screen readers.



But again, that was not something that came out in a particular way in the study. I don't think anyone in qualitative comments mentioned screen readability when they were talking about the transcripts and how they could be helpful to them.

**LILY BOND:**

Thanks. That makes sense. Someone else is asking, did students comment on the usefulness of being able to download the transcript versus having captions?

KATIE LINDER: They did comment on that and in a couple particular ways. The one that immediately comes to mind-- and again, I would definitely recommend looking at the study to get in more detail about this-- but one of the things that they commented on a lot was the searchability of transcripts and how that was not available for closed captions.

And so we had a lot of people who just-- when we asked about helpfulness, we had some qualitative comments that just said, Ctrl-F-- the idea that they could search for a particular word or phrase-- and that really helped in terms of efficiency.

So we got a lot of comments around that-- that being able to download and search-- and then also to very quickly look through something, to find something, without having to replay. But we also heard that same thing, at least in terms of the replay option about closed captions, that students would very quickly scan through a video. And sometimes if you do that on YouTube or with other players, you can see the visual and it would just run through the closed captions on the bottom. And they could quickly read through that to find the space that they were looking for on the video.

So we saw that in a couple different ways. But definitely the searchability of the transcripts was something that was a big bonus for students.

**LILY BOND:**

Thanks, Katie. It looks like that's about all of the questions that have come in if you want to conclude with the rest of the information.

KATIE LINDER: Great. So I wanted to make sure-- I'm going to push this as much as I can-- that this student report is available. I think that for at least some of the questions that were asked, this is going to be a really interesting thing for folks to look at. And you will be emailed, or you can check out the link.

We also have our second report from this study coming out next week. And this is the full study report for the institutional survey. This survey was one that we did a webinar on for the

second webinar, which we can link to. It's in the same space on 3Play's website as our other replays.

But this report will include additional results from our study, including more specific qualitative analyses about institutions, uses of closed captions, how they're implementing them, what are the solutions that they're using. The survey instrument is also included in that report and then the data tables for all of our questions as well. So you will receive an email when that report is available, just for registering for this webinar.

And then the last thing I wanted to mention was that we also have an upcoming webinar on February 9th on the state of closed captioning in higher education. And this is a webinar that's going to be overviewing some of the things that we've talked about in the first three webinars.

We'll talk about how and why students are using closed captioning, the perceived benefits of captioning beyond accessibility, how colleges and universities are handling closed captioning, current successes and limitations of captioning in higher ed. We'll give a comparison of captioning practices for face-to-face and online courses versus institutional video creation, and also, how colleges and universities perceive and react to legal requirements for captioning.

So all of that is going to be part of our February 9th webinar. And you can find information on that on 3Play's website as well. And then the final thing I just want to mention is that E-campus Research Unit at Oregon State has a research podcast that might be of interest to folks if you're interested in different kinds of topics and issues related to research in higher education. Full transcripts are provided with each episode, so this is a resource that's fully accessible for faculty students and other higher education professionals.

And thank you so much for coming to the webinar and for your really helpful and thoughtful questions about this study.

**LILY BOND:**

Well, thank you so much, Katie, for another wonderful presentation. It's much appreciated by all of us. And I wanted to remind everyone that we will be sending out an email tomorrow with a link to view the recording, as well as the slide deck. And I hope that everyone has a great rest of the day.