

Kari Robideau:

Why should you care about data viz? My name is Kari Robideau and I'm an extension educator for the University of Minnesota extension center for youth development. Thank you for tuning in to our Youth Development podcast series. In this podcast I'm facilitating a conversation on data visualization. I'm joined by two colleagues who are going to tell us why, as people who work with youth, we need to know this. Those two colleagues are Sam Grant, evaluation specialist from the Center for Youth Development and Emily Beshar, a research associate with Family Development. Thank you both for joining me today.

Sam Grant:

Thanks for having us on.

Kari Robideau:

A special welcome to you, Emily, as you come to us from Family Development, we always appreciate having special guests on our podcast. Knowing that Sam has joined us prior in other podcasts, our listeners maybe have listened to her before. We always learn so much about evaluation and her excitement about evaluation is infectious. Just when I go into a topic that I'm just not too sure about, she gets me excited about it. I'm anticipating that happening again today. Before we get started, will you two please tell us about your positions in Extension and start us down this conversation of why you are excited about data visualization.

Emily Beshar:

Hello everybody. I'm Emily Beshar. I'm in the Center for Family Development. The team that I'm on is the applied research and evaluation team. I would consider ourselves to be a support unit. I know that may sound odd for some people to hear, but that's exactly the way I see it. That support looks to be in the form of supporting the research and evaluation of our large grants. So making sure that we're getting back to the funders where they're asking for us. My favorite part, is I support our educators in infusing quality research and evaluation into their work. Often that takes the form of creating beautiful hashtag data viz reports. That's why I'm here.

Sam Grant:

I'm Sam grant and I work with the Center for Youth Development as their evaluation director. I think you have two people who get the most excited about data viz on this call today. We as evaluators spend a lot of time thinking about our data and writing up our data. Then lots of times you all don't read our data and make decisions with our data and we don't like that. This field of data viz has really helped to change the world of evaluation from my perspective because it has us thinking about the user and how we can create reports that get read and data that gets understood and different ways that we can change the world through evaluation. I totally love it.

Kari Robideau:

Anyone listening can hear the excitement from these two. I always feel like I'm a little bit of a fish out of water when I'm with my evaluation folks and there are things I get really excited about and, truth, it's not always evaluation and data visualization.

Sam Grant:

What?

Kari Robideau:

I know, I'm sorry guys. You both make me excited about it and I'm truly excited to hear from you today. Sam, let's keep talking about this and keep generating our excitement around data visualization and focusing on youth workers who are listening to this podcast. What is visualization? Let's dig deeper into that. Again, you talked a little bit about decision makers and the importance of communicating to them. Tell us more about why this is important for us.

Sam Grant:

Yeah. First of all, data viz, and I usually say viz because it's way shorter than visualization. The cool people use that lingo. Data viz, a short definition is that it's visual communication. A longer definition is it's a general term that describes efforts to help people understand the significance of your data by putting it in a visual context. That's a lot of things. It's maybe graphs or charts or numbers or infographics. It can really encompass a lot of different elements when we're talking about data viz. It matters for a lot of reasons, but the three that I always highlight are one, that we don't have a lot of time. Some research shows that we only have seven seconds to catch someone's attention, which means you may be already shut this podcast off cause there's no viz, but we don't have a lot of time. You want to draw people into your reports and your communication so that they pay attention.

Sam Grant:

The other thing, the second one, is around our brains. Stephanie Evergreen is a leader in this field and she talks about what she calls the eyeball brain. Can't you all just see that? The eyeball that our brains are? It's the idea that we're drawn into communications with our eyes, not actually with our ears. While it's really important to have good messaging and good data, it's really critical that you think about how people see it so that they can make meaning of information. Then the third reason why it matters is that we're overwhelmed. If you could look at my office, I have books and reports and papers all over it. We have information coming in at us all the time. This morning I had a headache and after two minutes on WebMD, I was afraid I had a brain tumor. There's too much information. Our goal as evaluators and data communicators is to add clarity and to not overwhelm people. Time, your brain, and the fact that we are overwhelmed are my reasons why data viz matters.

Emily Beshar:

Yeah, I would also say I get so frustrated by the idea that there are people making decisions, whether it's about what programs to fund or what laws to put into place. Often they're doing that in the absence of good data. They don't really have any... They're just, the lobbyists who have special interests at heart are coming and saying, "hey, do this." It's who convinces the person's strongest, who has the best argument. I'm like, "wow, that's a really terrible way of making important decisions." It shouldn't be about who do you like best or who took you out to many fancy dinners or who just was making most convincing argument. It should be about facts. It should be about reality. It should be about data.

Emily Beshar:

Even if that data is, "hey, we have one program that seems to work when you do it this way and we have this other program that seems to work when we do it that way." I think we actually do have a lot of really good data about what policies we should make and what programs we should fund and how we should design our programs. I would guess that maybe less than 10% of that is actually used to make decisions at all levels of leadership.

Emily Beshar:

My argument to that is it's not really a policymaker's fault or the leader's fault, it's very much the fault of researchers and evaluators and the people who have collected the data because we package it in ways that we understand it. I am [inaudible 00:07:44] as a researcher, I got hammered in my head, this is how you write about your data in a journal article. That is the exact wrong way to write your data up for someone who's actually going to use that information to make a good quality decision. I think data viz is essentially pushing us to actually get information to the people who make decisions in a way that they actually will use it to make better quality decisions to improve all of our lives.

Sam Grant:

One thing that I think is really important about what Emily just said is that data viz is not about turning the data so you manipulate your user. I think as evaluators we walk this really tight line of wanting to have data that's good and sound and now data viz is a way that we can communicate that. But in no way do we think that data viz is the way that you should skew your data in order to change people's minds. It still keeps the integrity of what you're trying to get across. It's just thinking about the user rather than how you were trained in graduate school.

Kari Robideau:

It really sounds like you are talking about data viz in terms of a reporting system. How do I create these reports that will actually get used, that will be looked at and are representative of my program and the impacts we're making there?

Emily Beshar:

One thing I think you need to think about is lengths. Okay. You do not need to report every single thing that you collected about. You really have to think about who is the end user of it, and if that means you create three different versions of a report out for three different audiences, that's way better than making one giant thing that has everything stuffed into it. When people are going to read the first three lines and then put it down and never pick it up again. Think about the end users, think about what they would want and what information they need to, as you said, make a decision. Is it the funder, is it someone who is a participant in your group? Was it a parent? What information do they see as important?

Emily Beshar:

Filter down by the end user and what they need to know and what they want to see. Then what format do you really want it to be in? Some people are going to want that super long report. Very rarely does that happen. I would argue that that is for our large funders who want that 25 page report. Great, for them, do that 25 page report. For everyone else, I would say you want one page, maybe two to three if you have a lot to fit in there. Or maybe no report at all. Maybe it's some social media posts. Maybe it's an image. It doesn't even need to be an actual report. The big thing that you need to remember when you do these reports to make sure that they actually get read, is to flip them.

Emily Beshar:

This is not a journal article where I tell you every single thing that you need to know so you can trust me and trust my information and all my theory and background, and then I'm going to give you the results after you've read 80%. No, you want to give your results and your take home right at the beginning. Tell them what they need to know because chances are that's all they're going to read. Then after that you

can put the other stuff in. Because if they're interested, they'll keep reading. That's I'd say the biggest thing from my perspective. What would you to that, Sam?

Sam Grant:

Yeah, I think those are great big tips. I think some little tips are whenever you make charts in Excel, don't go with the Excel default. I have some blog posts that Carrie will likely link to about some really simple changes that you can make, like using colors that match the organization that you're working for. The biggest thing I could say when you format out of Excel is add a title that makes sense. If that's all you do, you have that junk Excel default, if you put a title that explains what that data is telling you, it's going to take you a long way and I can share that. It will save you from public embarrassment in front of a large group of people when you forget to put that in and then you interpret the data incorrectly in front of a large room of people.

Sam Grant:

Not saying these things ever happen, but if they did, having a good title really helps to steer you. Instead of saying "gender composition", your title would say "3/4 of female third graders met this benchmark." Right away I know that's what I should be reading and understanding in this chart or this graph. Again, it's that idea of really understanding your user and then thinking like an eyeball brain. Think about how it's designed, think about what it looks like. I've been working with Carrie, she's working on a report right now and it's intuitive for a lot of people. And if it's not, ask a friend and they'll poke some holes in it and find some better ways to show your data.

Kari Robideau:

Well, and Sam, you referred to the report that I'm working on at the moment and I think something that has really helped me is I can hear your suggestions about the title. I can understand that I should get to that end user. Emily, you mentioned giving, one example could be have a graphic on social media that it's one thing. What has helped me is looking at examples and hearing about examples. What are some specific ways that we can show data visualization in our reports?

Sam Grant:

I think you can create a lot of them right inside Excel or within PowerPoint. Most of the great tips and tricks, you don't need to use fancy graphic design software and I would actually probably tell you not to use them unless you're a trained graphic designer because it distorts the data a lot of the time. Those are graphic design software is made for designers and Excel and some of the Microsoft tools are made for researchers and so you can work right within those tools.

Sam Grant:

One thing I would say, I know Emily and I have talked a little bit about, some people naturally can just see what colors look good and what colors don't look good and how you should put this chart into a certain form. I would say start to notice what you like and what you pay attention to. You really do start to see that lots of times it's things that are really simple, so maybe it's a percentage that they have blown up on a slide and there isn't even a chart. It's just 38% of kids had this happen to them with a great image of a young person learning that skill. I would say start to look and reflect on, what do you pay attention to? What is your eye drawn to it?

Emily Beshar:

I think there's lots of tips and tricks. I think there are lots of things that you can do and Sam and I can direct any listener on this podcast to all of those tools and tips. The overarching one, for me, has been, it's about making things clean and simple. It's basically is getting it as clean and simple as possible and yet also accurate. It's this tension. You get to this point, it's this sweet spot where you're like, I can't push it anymore or it's not going to be truthful. Certain things, when I started this process, I would not have been able to recognize that there were four different fonts being used in a document. I totally would've been one of those people that would have used, Aerial into Kolibri and then a Times New Roman and I wouldn't have seen the problem. I wouldn't have seen it.

Emily Beshar:

It really is a muscle that you start to train in your brain because you don't realize how distracting that is for people who do notice those things and how sloppy it makes their work. Things like that, it's you have one font, you are very careful about your font size. You remove any extra lines that are unnecessary, all extra words, cut them out. You say thank you and goodbye. If anyone is familiar with the KonMari method of tidying up, I think of that when I apply it to...

Sam Grant:

I love it.

Emily Beshar:

It's like I love this piece of data, it is meaningless for this end user. Thank you for what you've contributed to me, [inaudible 00:16:39] my 0.5 page report and now I'm saying goodbye.

Kari Robideau:

I think that that's a great tip and I appreciate you bringing that up because honestly that's probably the hardest aspect for me. It sounds so simple to be clear and direct and short and simple and it's so true. All of it is so important to me because it's what I did. How do I cut it down?

Sam Grant:

One piece of advice I always give to people, and I just gave this piece of advice to Carrie as she was working on her report, is have that moment where you write it all down. Like Emily said, that might be 25 pages, most of the educators I work with aren't going to get up into that level of just cause they don't have that much data, but write it down because then you have the breadcrumbs and you have the whole trail and the whole story and you can grab those pieces when you want. Then start to think about if you were going to tell your best friend or your mom or your office colleague the three things that you are most surprised about or was most impactful from your data, what are those three things and maybe start with that and pull those three pieces out and start to organize around there. You might find when you bring in those three points, you actually have to bring in this fourth because otherwise it doesn't make any sense.

Sam Grant:

Use those critical friends and think about those critical friends and start to pull out and layer the pieces because you have that whole report that you can draw on and feel comfy and snuggle up in bed with. You don't have to present those to the whole world.

Kari Robideau:

I'm not sure I've snuggled up with my report yet.

Sam Grant:

I hope not.

Kari Robideau:

Yeah, mine was only four pages. I'll say when I put it all in there.

Sam Grant:

Not enough insulation for sure.

Kari Robideau:

No.

Sam Grant:

You can layer your information. Most people, if you think about it, you probably write some report or write an email to your supervisor or write it up for your annual report. Then you also maybe share in a PowerPoint slide. We naturally are doing this, it's just you can have some placeholders to say, "this is the data I want to share here and a different set of data is what I'm going to share in a PowerPoint or one of those pieces I'm going to share in the PowerPoint." You can layer it in.

Kari Robideau:

You two have given some great tips here today. If I am listening and I want to learn more, where can I find resources to increase my skills in data viz?

Emily Beshar:

I think the best way get started, if you're on Twitter, I totally recommend following a few people. Stephanie Evergreen and Anne K. Emory. These are both people who are at that intersection of evaluation in data viz. There's a lot of different people you can follow that do a lot of data viz, but there may be less in evaluation. It's more on, I don't know, just the art of visualization and communication. You really want people that are at this intersection of data and visualization. Those are two good people.

Emily Beshar:

You can also, if you're not on Twitter, you can also just go to their websites and sign up for their blogs. They have great blogs and newsletters. They often have really awesome linked resources. Stephanie Evergreen has two books which you can find if you go to her website. Anne K. Emory has some awesome... She does great little video blogs, little instructionals that are two to five minutes that are super easy. She actually has a whole course about using Excel for online, for data visualization. If you do follow them on Twitter, they are connected to a whole much wider community and they'll connect you, you can see who they follow and who they retweet. Same thing in their blogs. They often link or have guest people who come on and do posts. I think that's a really fast way to get your feet into the field.

Kari Robideau:

Well I want to thank both of you for sharing in this podcast today. You demonstrated for us that data is important for decision making and that we should care. Sam mentioned that I've been working on a report and I'm building excitement for this and I hope the listeners have gained some excitement and really that importance of sharing your story through data viz so that decision makers and others are seeing the impacts of your probe.

Sam Grant:

Thanks for having us on and good luck everyone as you put together a data viz, it doesn't come right away but it's like riding a bike, you'll get better with time.

Emily Beshar:

Thank you Sam and Carrie for having me. This has been great. I like having these little youth development, family development overlap. My last piece of advice is don't be scared, you can do this. It really is a skill that you can pick up and pick it up pretty easily.

Kari Robideau:

Thank you Emily and it is a pleasure to bring a little bit of family development over to youth development and for you two to share your expertise together. That'll bring an end to this podcast, but before we go, if you would like to learn more about the University of Minnesota Extension Center for Youth Development, please visit us at www.extension.umn.edu/youth there you will discover research, training and events, including information on evaluation and you can take a look at how we may perhaps use data viz on our website to tell you the impacts of our programming. I also invite you to check out our information on the Minnesota Four H program. Learn how you can get involved if you are not involved already. Also, read and comment on the youth development topics covered in our youth development insight blog. Sam has some blog posts on there as well as the prior podcasts that are related to this topic. Please check into all of that. This podcast is from the University of Minnesota Extension Center for Youth Development. My name is Kari Robideau, joined today by Sam Grant and Emily Beshar. Please, tune in again soon.