Episode 27: Lydia Newton

# KL: Katie LinderLN: Lydia NewtonKL: You’re listening to *Research in Action*: episode twenty-seven.

# [intro music]

# Segment 1:

# KL: Welcome to *Research in Action*, a weekly podcast where you can hear about topics and issues related to research in higher education from experts across a range of disciplines. I’m your host, Dr. Katie Linder, director of research at Oregon State University Ecampus.

On today’s episode, I’m joined by Lydia Newton, Senior Research Assistant for the Survey Research Center at Oregon State University. In this role, Lydia specializes in questionnaire construction and design, data collection and reduction, and experiments in survey methodology. She also provides consulting services for students and faculty in writing questionnaires and implementing surveys.

**KL:** Thanks so much for joining me Lydia.

**LN**: Well thanks Katie for having me.

**KL:** I am so excited to talk with you more about survey planning and design because this is an area that I have been working on quite a bit in the research unit here at Ecampus and what I am realizing the more I get into it is just how detailed the work can be and that there are some very clear best practices and components that people should consider. So when you’re planning survey research what do you think are some of the major components that people need to consider?

**LN:** This is a really good question Katie because there are many components to consider when planning your survey. I guess the easiest way to think about it is the who, what, where, how, and when. So first off the who that would be your target population. Who are you planning to survey? Who do you want to say something about? Who should answer the survey? So the what is your study objectives. So what are wanting to measure or what kind of data are you trying to obtain? So the how has to do with the population frame and this may give you an indication of the mode that you use for your survey. Like how you’re going to collect your data. So your population, you should know something about the characteristics of your population. For instance if this is a specialized group like students or people at a business. These folks are used to using email and the internet and so perhaps a web survey would be an obvious choice for them. However if you are looking at a general population survey you may not want to strictly go with the internet because you’ll be leaving out a portion of the population. So and the when has to do with, well it has to do with when you really need your study results. When you actually implement the survey that is the timing of the survey. It used to be we kind of thought about the holidays and summer time as really a bad time to recruit folks for survey but this is not necessarily what we are finding now. But do consider deadlines for your reports and perhaps you’re going to publish your results. Are you going to be representing you results at meetings. So work backwards from that and there is a certain amount of time you should appropriate towards doing a survey and that will depend on the type of mode that you chose as well. You should schedule out your recruitment and your recruitment will depend on the mode that you chose. So I am sure we will talk a little bit more about this later.

**KL:** Yeah, a couple of things that you said really resonated with me and one of them is the idea of planning backwards and really having kind of the idea when that end result is going to be needed. What are the outcomes? Is it publications? Is it some kind of report that might be generated? But the other thing that you mentioned which has really been a large part of my survey design recently is recruitment strategies and kind of planning ahead for that and thinking specific about the population that you’re working with. I have been talking with some people recently about working with people who might have different accommodation needs due to disability and I have been recruiting a group to do a survey where I know that population of disability accommodation might be higher than a typical population. It did impact my recruitment strategy quite a bit making sure I had accessible recruitment methods and making sure that was built into my survey as well. I think that if I hadn’t planned for that it would of come up an been kind of a wrench in this study design because I would of realized it later on that I need to build these things in. So really thinking about piece by piece as you advocated makes a lot of sense to me because things can kind of come up in that planning that you maybe wouldn’t have thought of.

**LN:** Yeah this is true Katie because I guess the rule of thumb is try to give yourself more time then you think you’re going to need.

**KL:** Yes, absolutely

**LN:** Because things like this come up and they come up in every survey that I do. There just uncertainties and so and then like I mentioned before depending on the mode there is kind of set of usually or standard amount of time that we expect depending on the type of survey. Like a web survey versus a mail survey. But then there are these special circumstances like you mention where you have to tailor your recruitment to fit your population more and so it is just a really good rule of thumb to allow yourself enough time and to start things a little further ahead than you would probably think to do.

**KL:** Yeah I think that is such good advice. In research generally things come up that you just aren’t expecting. I had this conversation the other day with a faculty member that had some research funded through our research unit and she said you know I was planning on doing research on this course and then my course got cancelled and she was very concerned. And I said you know these things happened if we didn’t plan for them we would be in trouble all the time. We’ll adjust we’ll kind of figure out a different timeline and I think whenever I’ve done survey research it’s been the same. Something has come up that has just changes. Either the timeline of the survey, or how we are thinking about the questions that we are trying to get, or the data we’re trying to collect from a certain population just seems standard to me.

**LN:** I guess being flexible will help and another good rule of thumb is to also keep track of all of these things when you go through these study. Jot them down, list them, and make sure when you report your results if there was something major. For instance you added another form of contact to reach these folks to increase your response rates maybe, or perhaps there was a pitfall in the mailing itself, email oh gosh maybe the internet went down right after you sent an email out. Which has happened to me. So keeping track of all these things, keeping good record is another good thing to do.

**KL:** Yeah, I could not agree more. I think with most of our surveys and even general research designs we aren’t always doing that work as we go and it just saves you so much later on. I do find though that with survey design in particular with some people you know I talk with people about doing a survey and for some reason I feel that it’s underestimated. People think it’s just a survey. It’s just survey research and I found that it’s so much more complicated than people think it is. You know why do you think people underestimate what kind of planning is involved in a survey design.

**LN:** Well I think it has to do with not necessarily understanding all the components that go into a successful survey. There is a very long list of things to consider. We mention some of them. What type of resources do you have? What type of personal do you have? Do you have to train folks to code, enter, and analysis data? How many people are on the research team? How many individuals have input into this questionnaire into the questions that are going in? I find that the more folks that are on the committee the longer it will probably take to get your survey out the door.

**KL:** We are going to take a brief break when we comeback we are going to talk a little bit more about survey recruitment and some best practices.

# Segment 2:

**KL:** Lydia it seems to me one of the kind of major issues of survey planning that can cause problems later on if not done correctly is survey recruitment. So I would love to spend a little bit more time talking about that. First of all what are some of the different methods that researchers can use for survey recruitment.

**LN:** Well at the survey research center we tend to conduct self-administered surveys for the most part. Those would be surveys where we are contacting individuals either through emails or using the postal service sending an actual cover letter requesting participation. So that is the mode of recruitment, sometimes the data collection method is a little bit different where we might send an individual a letter in the mail because we don’t have an email address but we still want to direct them to a URL on the internet to complete the survey in that manner.

**KL:** Ok one of the things to think about is kind of how you want to contact the participants and that can be different than how they actually engage in your survey.

**LN:** That’s right and how you contact the participants often will rely on what information you have in your list. Again you know the internet is a popular mode for collecting survey data. However we often most of the time do not have email address for our population especially if you’re looking at a general population survey. Now when we conduct surveys here on campus with students and faculty usually email addresses are collected in those cases and so we can use this medium to contact people.

**KL:** I’m wondering if you could also talk a little bit more about the ways survey recruitment has changed over time particular because of the internet and cellphone use. I know for a recent survey that I’m actually working on right now our recruitment we have included webinars as one way to talk to people about the study and give some additional information about the surveys that we are conducting. Have you seen other kinds of changes over time?

**LN:** Over time, I mean if we’re looking back, clear back to the 1970s when survey research really kind of blossomed, back in the good old days there was really, the emphasis was more on a face-to-face interview or a phone interview. And we saw very good response rates with that. Then as we proceed through time, the mail questionnaires became more and more popular. And these would be, these move into the self-administered surveys. Then once we get into the 90s and we start venturing into email and the internet. All though we often want to collect data on the internet again we have to think about coverage era and who our population is and whether responders are able to respond on the internet. This is very important because you don’t want to leave out certain individuals. So now we have these other methods, we have cell phones, we have email we live in a world now where everything runs really quickly. It’s almost like immediate gratification is going on all around us. Where we can often send out an email blast and contact far more individuals within seconds. It can also work towards our disadvantage because emails as you know we come into the office on Monday mornings we have 100 emails in our box and depending how busy you are you might just go through and weed out the ones that you feel aren’t very important. There are many mechanisms embedded in our email systems that can detect spam and so forth. So one has to be really cleaver as to the subject line and who the email is being sent from and so forth. Cell phones are also all though we are doing more and more cell phone contacts. Often behind a survey is if you’re looking at a sampling scheme let’s think about this again in terms of who we are contacting and who we want to say something about. If we are trying to contact residents let’s say in Oregon only and we are trying to use cell phones as the medium to contact for participation for the survey. The only really indicator that we have in this particular case of an individual residing in Oregon is perhaps by their area code of their cell phone but as you know your area code could be outside of a state. And so we are going to get some sampling error involved if we relying on such things. And so we just don’t have a very good, we just don’t have complete information on using some of these modes just yet.

**KL:** I think you’re making just excellent points about you know the level of detail that has to go into these recruitment strategies. One of the things that I have seen and you know I to be honest I have experience some impatience with this myself is you know when you’re going through a process of doing a study design and going through like IRB and you have to detail all your recruitment strategies and the different ways you’re going to include participants in your study. It can feel you like you want to kind of rush that you know like it seems like one more hoop to jump through kind of write out the email content or write out the social media strategy or whatever it maybe. But then you get to the recruitment part of the study and you realize just how important it is to have worded things in very particular ways like you said even the subject line of your email is really you know that is what is going to get people to actually read what your trying to do and that seems kind of overwhelming to have all that detail to be thinking about.

**LN:** When you send out a survey request, I often ask tell my clients to think about what would be the reasons why you would answer a survey. What makes you upset when somebody trying to recruit you for participation for a survey? So there is something called the social exchange theory which poses at an individual will respond to a questionnaire if the perceived benefits outweigh the perceived cost. So there are many elements in the requirement materials that can get to just that. So reducing perceived cost something like providing an incentive to the respond. Sometimes a monetary, sometimes a token incentive like a pen or sticker. Stating the purpose of the survey and stating why it’s important for the individual to respond giving them a sense of value. That hey we selected a sample for this and you are one of few people that we selected to respond and in order for the results to truly represent this population we need to hear from you. Be polite. Say thank you, look official. If you’re using a letter like a cover letter use good letter head put it in an envelope that looks professional. Provide if you’re doing a mail survey again provide a return envelope that already has a stamp on it so that it is easy for respondent to respond. These all fall within the social exchange theory. Now the other thing that you mentioned was IRB and for listeners that don’t really know what that is that’s the institutional review board for the protection of human subjects and we have one here at Oregon State University and I believe all Universities across the United States have it. Any bureaucratic agency may have to go through an IRB committee to review their questionnaire. So it’s really is has to do with the title protection for human subjects. So whenever you are using a human subject for research the IRB looks at your protocol and make sure that no one is going to be harmed. Now surveys usually fall under what we call an exempt status because you aren’t picking blood you’re not having someone run on a treadmill and so forth. So we’re just sending you something an email or through the postal service to just respond to some questions. When you get into a prisoners or minors then the IRB review is a little more complex and you may actually fall into a different category. But the reason I am bringing this up also is because the IRB requires certain elements in your recruitment materials and they want to make sure that you mention things like confidentiality, how things are going to be stored, sometimes depending on the IRB committee how long a respondent could expect to take to answer the questionnaire, the questionnaire is voluntary and so forth. These are the common elements that the IRB will require the researcher to include in recruitment.
**KL:** Absolutely and I think you know there are so many factors that go into a successful IRB application. You have the protocol, you have the instrument itself, you have the recruitment strategies and other kind of documentations as well that and it seems to me that sometimes the recruitment pieces can fall through the cracks as your trying to get everything together and compiled. So I appreciate so much your concrete examples in this segment about thinking about what are the kinds of different things we need to think about with survey recruitment.

**LN:** Yeah one other thing that I forgot to mention is very important is provide contact information on your recruitment piece. So if the respondent if they have questions can contact one of the researchers. Perhaps they fall outside your frame what I mean is that you have them in your recruitment list belonging to this targeted population. Let’s say that the respondent had supposedly gone to a program and I don’t know completed a program at the University and now you want to survey them and ask them how well the instructor did. So but sometimes we reach the wrong person, sometimes this person is on our list they may have dropped the program or dropped the class whatever our example is and they need to let us know hey I didn’t actually do this maybe you should take me off our list. Once you keep a list of all of these. This will get into response rates and I’m not sure if we are going to talk about that later on but someone who falls outside of your frame will actually be removed from your sample number and so your responds rate will change. So it’s important to keep track of all of that but most importantly it also gives the research some creditability and the participant if they do have some questions they can contact you.

**KL:** That is such an excellent point I’m really glad you mentioned it. We are going to take another brief break and when we comeback we’ll get into some more details about survey design. Back in a moment.

# Segment 3:

**KL:** Lydia it seems like survey design is another area that can be kind of underestimated by folks who maybe not have a lot experience with it. What do you think are some of the most difficult components of survey design?

**LN:** Well when we are talking about survey design, I’m going to focus a little bit on the actually questionnaire and so when we are thinking about a questionnaire we think about the questions themselves. When folks come to me I help them actually write out the questions. So a lot of times it’s a lot of back and forth. Some questions are easy like behavioral questions, demographics, things that are kind of either true or false. There is a pretty good easy set of standards on how write those questions but when we are trying to write questions about attitudes it can become a little more comber some. So a lot of time I find myself if I don’t understand what the question is asking to begin with I will sit down and say what are really trying to measure here. Sometimes folks try to squeeze too much into one question and we can label these as double barrel questions. Where they are asking two different questions at one time. So when every your reading your questions out load to yourself your reading your questionnaire it’s really important to look at each question individually and make sure it’s asking one question at a time. So the other thing that I try to focus on is trying to reduce bias in the questions by leading the respondent into answering a certain way. I touched on measurement error before is the question written in a way so that the respondent can understand it. I’ve seen some really complex questions that are maybe four, five, six sentences long and its one should remember that people when they answer questionnaire they don’t want to spend a lot of time of their day answering your questionnaire. So they’re going to go through it very quickly. So be brief, be to the point, make sure that it’s understandable and also think about the language that you are using. Don’t talk down to respondents. So one think that I just want to point out to the audience here is that I have been doing survey design for 17 years now and every project that crosses my desk there is always something that I learn. When the client comes to me I don’t know about every topic that somebody is surveying that’s what is nice about my is that I get to learn on many different things but I rely on my client. It’s kind of a back and forth to get that question right because they are the expert in that topic and I maybe consider more of an expert in the actually construction. So it’s a joint effort a lot of the time. So I do teach a class on survey methods and in my class I have about 32 guidelines that I go over with the students on kind of general standards on the dos and don’ts on question writing. Now this does not cover everything there will always be questions that come that will puzzle you and so my other advice will be to always ask other individuals that are familiar with the topic and also another good thing to do would be if you have time to pretest your instruments. Ask you can send out the questionnaires to other people within your committee, your department, whoever may know something about the subject and you could do other types of pretest where you actually pilot the survey and send out the survey to a small sub group in your sample and see what comes back make sure everything is being understood. One other thing is that and I do see this a lot we often we finally get the ok to do our survey, we’re all excited, we have the funds, we get our people involved, and we start writing down our questions and we just fall into the trap of asking too much. And so try not to lengthen your questionnaire any more than it has to be because remember I mentioned that people are very quick when going through surveys and you really have to capture their attention first through their recruitment materials but also through the questionnaire itself. It has to look appealing and I can tell you if that if you send a 20 page paper questionnaire to individuals they are less likely to answer that they a nice short four page questionnaire. So that is another thing that I see quite often. So if there is something that you don’t feel that you’re not going to need in your analysis then lose it.

**KL:** I think that is such good advice and also why having a colleague or you know like you mention this committee they can help you really talk out what are the things that are needed in the instrument and what are the things that maybe you thought were needed at one time but you can maybe call out just to shorten it. We just got a survey here for an institutional project that has over 260 questions on it and as I was thinking about it you know I was thinking by the time you get to question 150 don’t you want to be done. Aren’t you just kind of your fatigued and I think anyone taking a survey is going to have that challenge and that is something else to build into the survey design can you give someone an instrument that they can come back to later if you are going to have to do something that is quite lengthy. But I think that there are times that a good initial piece can be to write down all the things that I want to know but to circle back and really question do I really need all these things after all.

**LN:** That’s again another good rule of thumb and I work with folks on that and sometimes as we go through the questionnaire and we start the back and forth. And I say what are you really trying to get at here and they say wait a minute I don’t even wait, wait how did that get in there we don’t need this. What I love to see the big X marks on the paper as we go through it.

**KL:** Yes absolutely. For folks who are listening that may want to learn more about survey planning and design. I’m wondering if you have any go to resources that you can share with us.

**LN:** Oh yes certainly. Well I have my textbook that I use in my class and is called Internet, Phone, Mail, and Mixed Mode Surveys: the Tailored Design Method.

**KL:** That is a great one I have it on my shelf as well.

**LN:** Yeah, yeah it’s kind of the student research bible. So the tailored design method is the most commonly used method for survey researchers. I do use that in my class. What the name emphasizes is and what I like about it is the tailored design method which means is that for any given study there are going to be characteristics in your study that are not going to be so streamlined. So there maybe you mentioned earlier like about some surprises coming up where you were recruiting that maybe we had to change gears and try a different method. That’s where the tailored design method is a really useful instrument for helping one with their survey study.

**KL:** That’s a great book and yeah its one that I recommend as well

**LN:** So the fourth edition is out it came out in 2014 and I highly recommend that. There are a myriad of other books out there. The other thing that I think and sometimes people don’t think about this is the U.S. Census. When we need to better align our demographic data to fit the population of interest the U.S. Census website can help us do that. And there are many other interesting things to look at the website for instance if you need to know population demographics in Oregon if you doing a general population survey for Oregon only and maybe you want to know what type of income ranges to put on an income question this is a good place to find such things.

**KL:** Those are excellent resources we will link to them in the show notes. I also want to point out in episode three with Lena Etuk we talked about social demography. She is the social demographer her at Oregon State. So if you wanna here a little bit more about kind of the census and some of the data that can come out of that. I refer you to episode three. Lydia I want to thank you so much for sharing your expertise and your knowledge about survey design and planning with us today. So thank you so much for coming on the show.

**LN:** Oh you’re very welcome. Thank you for having me.

**KL:** And thanks for our listeners for joining us for this week’s episode of Research in Action. I’m Katie Linder and we’ll be back next week with a new episode.

# Bonus Clip #1

**KL:** In this bonus clip for episode 27 of the Research in Action podcast Lydia Newton discusses the four types of total survey errors.

**LN:** I do also want to take the time to talk about something that is very, very important and as survey researchers we are aware of these but often folks that don’t do survey research on a regular basis are not. And it is something called a total survey error and when conducting a survey in order for it to be reliable and validly you want to reduce total survey error as much as possible. And just really briefly survey error is really contrived of four things, there are four different types. Sampling which has to do whenever you’re not conducting a census you’re taking a sample, you are going to get into some sampling error. Coverage error has to do with really the list and who falls into your email list or your mailing list. Those that you’re trying to reach out to respond to the questionnaire, you can have over coverage or under coverage within this list. So somebody that maybe there was somebody that should have been in your population frame that didn’t make it in there onto your list or there might be duplicates in your list. Also the mode of how you collect your data can interfere with coverage error as well. Again web questionnaires are very, very popular their a good way to possible to reduce cost you can obtain results quickly but remember that you know sometimes your leaving out parts of the population. Again this has to do with the population frame that you are intending to measure but we can increase coverage error by not thinking about the list that were using to recruit folks. There is something call non response error which has to do, well a lot of people think non response error has to do with response rate its self and all thought they can be correlated where a low response rate can lead to a nonresponse error. You have to have a non-respondents for a questionnaire have to be different in some way. You can have a pretty low response rate and have little to no nonresponse error. Conversely you can have a high response rate and have a nonresponse error present. And finally is measurement error and this is where I tend to focus the most on here at the survey research center because I’m in charge of designing questionnaires and that means actually writing the questions. Measurement error has to do with the questions themselves. If the respondent doesn’t understand the question or answers it inaccurately then that leads to measurement error. So this was this a kind of a quick and easy lesson in the types of error and whenever one is conducting a survey should try to reduces these as much as possible.

**KL:** Thank you so much for sharing those types of errors. I think that you know having it laid out like that in a really clear way is very, very helpful.

**KL:** You just heard a bonus clip from episode 27 of the Research in Action podcast with Lydia Newton discussing the four types of total survey errors. Thanks for listening.

Show notes with information regarding topics discussed in each episode, as well as the transcript for each episode, can be found at the *Research in Action* website at [ecampus.oregonstate.edu/podcast](http://www.ecampus.oregonstate.edu/podcast).

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