

Research Methods in Health Promotion
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Week 06
Lecture 27; The Convergent Design

So, hello everyone and in this lecture we will discuss about the convergent design. So, the first lecture of this particular week that has been covered and you learnt about the basics of mixed method research. And in this lecture and the other lecture of this particular week we will discuss regarding the important mixed method designs. So, in this particular lecture we will cover overview of the convergent design, the choice of the convergent design, the convergent design procedures and strengths and challenges in using this particular design. Now, the convergent design is a mixed methods design in which the researcher collects and analyses two separate databases that is quantitative and qualitative and then merges the two databases for the purpose of comparing or combining the result. Now, if you go through the evolution of the typology of different mixed method techniques you will see that initially it was the triangulation, the concurrent triangulation, triangulation then convergent parallel then we now mostly talk about the convergent design.

So, the intent of the convergent design is to obtain different, but complementary data on the same topic. Now previously in fact, now also basically it is said that it depends on the researchers intent, ok. Researchers intent and rationality is very important why are you actually demanding for both type of data, why qualitative and quantitative both type of data is needed that is very important if you are planning for any mixed method study. So, you have to be very clear that what is the importance are you going to triangulate the data like you know from different sources or different types of data or you want to just compare and contrast and you just want to see that whether things are you know they are divergence or you know concordance or discordance.

And you know in next few lectures we will talk on explanatory, exploratory and more complex design like embedded. So, in each technique the important thing is that what is the rationality of actually considering this particular mixed method technique. Now, as a researcher you have to be very clear your intent should be very clear that what is the utility of having both type of data, what extra benefit you are going to have by adding the qualitative with quantitative ok. So, one by one we will keep on discussing in different lectures. Now here we will talk on the convergent design.

Now the intent of the convergent design is to obtain different, but complementary data on the same topic. So, on the same topic we will have some quantitative findings and we will also have some qualitative result ok. Now this design is used when the researcher wants to compare quantitative statistical results with qualitative findings for a complete understanding of

research problem. Now your research problem can be antimicrobial register your main topic ok. It can be gender equity, it can be you know the family planning practices.

So, it depend depending on your research area research topic you have to be very rational and genuine that here why do I want to compare both the you know compare contrast ok. I have to see whether the findings of the qualitative are actually concordant with the quantitative or discordant with the quantitative. So, just to understand to have a very deep understanding you can say or for a very complete understanding of a research problem we go for this particular design for the convergent design. Now other purposes for this design include corroboration and validation purposes you can just see that here whether qualitative findings what we are getting is actually you know some at least some I am not saying that entire everything you will find you know concordant results something will get diverge, but the important thing is that in using this particular study design you will be able to understand the where things are going. Then illustrating quantitative results with qualitative findings or examining the relationships among variables.

Now, here at a time we are having quantitative data collection analysis and also qualitative data collection analysis and you know we merge compare and we can see the contrast ok. And finally, we have our interpretation of the entire study. So, the choice of the convergent design to in addition you know to the intent of comparing results to best understand a particular research problem. The other compelling reasons for using this particular design that is convergent design. Now, it is useful when the researcher has limited time for collecting data in the field and must gather both type of data in one visit.

So, what is happening you know one data is not entirely dependent on the other data type. So, at one go you can have in your research team you know you can have some qualitative expert you can have some quantitative survey expert. So, at one go you can go and just collect quantitative data and qualitative data. The researcher needs both quantitative and qualitative forms of information from the participants. Now, the researcher has skills in both quantitative and qualitative methods of research.

So, that is important if you are a single researcher this is very important, but if you have a team then definitely you know if you are expert in quantitative team there are some other people you know someone else is more you know confident and specialized in qualitative then you can have I mean then in that case it is not always necessary that the particular researcher should have both the skills, but generally as a single researcher you should have both the skills. The mixed matters team has individuals skilled in both quantitative and qualitative research just now I discussed. Now, how what are the steps how do we go for this particular convergent design. So, four major steps now first the you know the researcher collects both quantitative data and qualitative data about the topic of interest. It might happen your topic of interest it can be you know the dietary habits also in that case you go for the quantitative also and you also go for the qualitative.

Then these two types of data collection are concurrent, but typically separate that is one does not depend on the results of the other ok. So, at a time you are also collecting qualitative you know data and also at that particular time at one go you are also collecting the quantitative data. Now, second the researcher you know analysis is important research analyzes the two data sets separately and independently from each other using quantitative and qualitative analytic procedures. Now, after collection you all know that you have to go for the analysis right. So, for the analysis you have to do the analysis of quantitative data separately and for your qualitative data also you have to do the analysis separately.

Then once the two sets of initial results are in hand. So, after analysis you have the findings and you have the results of both quantitative and qualitative in your hand now. So, the researcher reaches the point of interface and works to merge the results of the two data set in the third step. So, now, see just in front of you have that these are the quantitative result and these are the qualitative findings ok. So, as a researcher what you will do now? You will reach the point of interface ok.

And now you will try to compare I mean you will merge the result and you will try to compare the result ok. You will try to compare and contrast the findings of both qualitative and quantitative. Now in the final step the researcher interprets to what extent and in what ways the two sets of result converge or diverge from each other. So, I was just discussing now that finally, you have in your hand now as a researcher you have to interpret you know interpretation is important. So, in interpretation then you see that the two results how much in what extent they are converging or diverging from each other that means, the quantitative and the qualitative or relate to each other something you know there are some findings we will find related to each other and or combine to create a very in depth and better understanding in response to the studies overall purpose.

Now see in this particular week we will discuss regarding the different mixed matter techniques, but in details about the data analysis you know the integration, interpretation and also writing the result you know the representation of result the report writing everything that I will discuss in week 11 and week 12. So, now during you know these lectures in this particular week you have to focus on the different characteristics of mixed matter techniques ok, the strengths, the challenges, how to go step by step, but in details analysis integration interpretation and you know the writing report writing everything I will discuss in week 11 and week 12. So, do not worry first in this particular week you try to understand about the basics of mixed matter research, what are the important mixed matter techniques mixed matter design, where to apply, how to apply, what are the strengths, what are the challenges of a particular mixed method design. Now, if the result diverge then the researcher can take further steps to explain this difference through reexamining of the result ok, again you can reexamine the result you can again you know decide for more collection of data or reflecting on the quality of databases that is already been there. So, you will also focus that here this is the quality of the database.

So, that can be done if you see that here if the results diverge completely. Now, here you can see so, step 1, step 2 and in the next it is step 3 and step 4. So, this is the continuation of you know this particular slide is a continuation of the previous one. So, in first this particular slide you see I have mentioned step 1 and step 2. So, you can see the two column you know at one go you can see that quantitative and the qualitative strand.

So, state quantitative research question and determine the quantitative approach. So, first you have to what you have to do your research question should be clear ok. Then you have to obtain permission that is very important you have to obtain permission for conducting the study for you know conducting the data collection, then identify the quantitative sample ok. Then close ended data you know you will be collecting the close ended data with your measuring instrument your measuring tool. So, as a researcher according to your you know research question according to your objectives you will have your own you know tool a measurement tool a survey questionnaire or instrument.

Then again at this point you see the qualitative one that qualitative research question also you have to state this is a qualitative research question that is also very important. Then you also be where you should also be very clear what qualitative approach you will be going to follow ok. Depending on your you know rationality and also feasibility you can decide as a researcher. Then permission getting permission then identifying the qualitative sample ok. Then collect open ended data with protocols you know you can have the different interview protocols or the observation protocols.

So, it depends what you are actually what kind of data ok, which method are you going to follow in the qualitative phase. Now then you know the analysis is important. So, you will be analyzing the quantitative data now as a researcher you know you can depending on your objective, you can use different descriptive and inferential statistics, effect sizes and for the qualitative also theme development and those specific to the qualitative approach you can go for this. And then next stage we use strategies to merge the two sets of result you know after you have your findings now the time has come where we have to merge. So, that we can compare and we can also see what are the you know the similar findings or similar things convergent or you know the contrast for the divergent you know what divergent or diverging findings you will be getting.

So, identify content areas represented in both data sets and compare contrast and synthesize the result in a discussion or table. So, you can have in a tabular format or you can write in a in a paragraph format in details as I said I will discuss in the week 11 and week 12. And you know one most important thing is as a researcher when you will have your qualitative quantitative findings definitely you will merge and you will see which are the convergent and divergent findings and also you know in you have to come to a conclusion right as a researcher you will be coming to some conclusion based on your findings ok. So, that is also important.

Identify differences and similarities within one set of result based on dimension within the other set creating a joint display to array the quantitative and qualitative now joint display in a tabular form you can have the both quantitative and qualitative findings you can see you know the I mean in one go you can have a very clear picture the convergent and divergent findings.

Now, in details of joint display that will be covered in the week 11 ok. Then you can create a comparison discussion for your mixed matter report now as a researcher finally, you know you have everything in your hand. So, you will be having a discussion here these are the findings about my research problem which is actually converging diverging and also you have to as a researcher your own interpretation your own conclusion is also very important. Then develop procedure transform one type of result into other type of you know sometimes the different themes you got in qualitative you can turn that into count you can have in a quantitative form also. And you can conduct further analysis of that particular quantitative which you actually turned from the qualitative themes or qualitative findings and then again you can have further analysis now as I always say it always depend on the researchers intent aims and objectives ok.

What further analysis he or she is actually aiming to do? Now then you can conduct further analysis of that particular quantitative thing to relate the transformed data to the other data you can conduct statistical analysis that includes a thematic count that themes you got from qualitative you change into quantitative count and definitely you can also go for further statistical analysis. Now at the step 4 you know at last what we have to do we have to interpret the merged results ok. So, you can summarize we have to summarize the results and interpret the separate results discuss to what extent and in what ways results from two types of data converge diverge relate to each other and or produce a more complete understanding of a particular research problem or a particular research topic. Explain the divergence if it occurs definitely you can you know as a researcher in discussion column in discussion section you can explain that or in fact, you can plan for further analysis and or further data collection to explain those diverging result ok. So, see you know like you can you know in a school study what you can do like regarding gender equity you can just go to a school and you if you I mean just I am giving one or two examples ok.

So, what can be done? So, attitude towards you know the gender equity you can have that findings in quantitative and you can go for qualitative from the teachers their perception because you know that teacher the influence students are always getting influenced somewhere or the other. So, they are getting influenced by the teachers you can go for you know at the same time at one go you can also go for the qualitative you know interviews depending on your feasibility you can go for qualitative interviews of the teachers and you can see their views and opinions on gender equity and also their views and opinions that what do they feel that what actually student what are their views and opinions regarding gender equity what student feel about gender equity ok. In the same time you can also go for a study you know dietary habits you can have in that case what you can do for first you will go for the quantitative

you just want to see that yeah their dietary habits then among you know students only you can go for the qualitative ok. You can also go for their views and opinions regarding dietary habits ok. So, that you can understand that particular you know the problem of unhealthy dietary habits.

So, that is a problem and then what will happen if you go for this particular design you will have a very very in depth understanding a very good and elaborative understanding of their dietary habits because what you are doing you are having some you know prefix some quantitative things quantitative findings you have then in details also you are trying to understand through qualitative data ok. That what are the factors what are their views what are their perceptions regarding this particular habit. So, in that case you will have a complete picture then you can compare contrast you will have a very you know a very a complete understanding and complete picture of this particular problem you will see that yeah these findings ok. Getting converge diverge as just now we discussed. So, you in according to you can have you know you can decide based on your research question based on your objectives how actually you are going to conduct how you are going to formulate and conduct the entire study.

Now what are the strengths of the convergent design? So, researchers new to mixed method often choose this design and it is also said you know that this particular design is more popular and it is not from now it is like you know a very very in if you go through very old literatures also you will see that you know the particular this kind of quantitative and qualitative merging and comparing and contrast type of things you will find more in literature. It was the design first discussed in the literature and it has become a popular approach for thinking about mixed methods approach. Now it is an efficient design in which both types of data collected during one phase of the research at roughly the same time at one go you can have. So, each type of data you know it can be collected and analyzed separately and independently. So, we discussed now that it is not like you are not completely dependent that what is going to happen in the qualitative or what is happening in the quantitative.

So, at one go you can have both the data you can have analysis and also you can have your findings in your hand. Now this 10 this lens itself to team research in which the team can include individuals with both quantitative and qualitative expertise we all know that you know if you are having a research team then few people you know they will be having expertise in quantitative and other people they will have expertise in qualitative. Now the design facilitates the direct comparison of participants perspectives gathered in open ended question format you can have semi structured interviews in that case what is happening you are getting the perspectives ok. The participant perspective which you gather through qualitative through semi structured interview you know in open ended questioning format with the perspectives drawn from the researcher stand point because the researcher you know according to your aims and objectives you are actually choosing an instrument you are choosing a survey tool you are choosing a measuring you know the measurement how you are actually going to measure the

quantitative that is on an instrument such as a survey chosen by the researcher in close ended questioning.

So, you have both the thing. So, that is why you know this design it is actually facilitating you to compare to have a direct comparison of the participant perceptions you know in depth explorations you can have through qualitative way and also you have the you know your own I mean you are the one who is actually choosing a particular measuring tool survey tool. So, in that point you are having your own researchers stand point that this particular thing I am going to elicit from the quantitative data. Now next is what are the challenges ok. So, challenges issue of different sample sizes are there researchers need to consider the consequences of having different samples and different sample size when merging the two data sets then the need to merge a text and the numeric database. Now you can understand that the two things you know it can be challenging to merge two sets of very different data one in numeric way one in words and text and they results in a meaningful way because as a researcher your own interpretation and finally, when you will come to a conclusion that is very important.

So, that has to be done in a very clear and meaningful way. Now the need to explain divergence when comparing results researchers may face the question of what to do if the quantitative and qualitative results do not agree. In contradictions may provide new insights into the topic, but these differences can be difficult to resolve and may require your additional resource now because again you have to maybe as a researcher again you will decide that yeah I have to go for additional data collection or again you will go for the reexamination of your results and findings. So, these are the some challenges of this particular design. Now in conclusion the convergent design is a mixed matter design in which the researcher collects and analyzes two separate databases that is quantitative and qualitative and then merges the two databases for the purpose of comparing or combining the result.

You compare and you can just have your own, you know, interpretation that these things are actually matching with this particular finding of qualitative with quantitative you are combining you are merging you are combining then you can see what are the similar and dissimilar things which are coming up. Now this design is used when the researcher wants to compare quantitative statistical result with qualitative findings for a complete understanding of the research problem. So, we know now that we can see as a researcher either we can go for qualitative or we can go for quantitative. So, that is why you are choosing the first very important thing is that why are you going for the mixed method approach in this particular research problem in this particular research topic So, first thing that has to be clear that why are you going for the mixed matter techniques you can either go for quantitative or qualitative. The second important thing is that if you feel that this particular topic and that rationality you know that rational thing has to be very clear that why are you going for mixed method approach Then which type of mixed matter design you are going to adopt for this particular research problem or research topic.

So, then in that case your intent you know you should have a very clear picture that yeah if I go for this particular design then I will have a complete picture a very clear and complete understanding of this particular research problem. So, this is very important as a researcher if you go if you want to you know if you want to go for mixed matter the things should be very clear. It should not be vague that yeah I feel I should go for this particular technique. The important thing is if first you should be very clear that why are you going for mixed method and which type of mixed matter design as a researcher and definitely if you having a research team then each member of that particular research team they should be very clear I mean they should be discussion that yeah this is the research topic among this population we want to do a study we want to conduct a study. And then in among you know the research team members you can have a discussion and finally, you can come to a I mean final decision that yeah this particular design we will follow in our study.

These are the learning resources: the first one you know the first textbook which I mentioned Creswell please go through this textbook very well this is a very very you know wonderful textbook for mixed matter research. Thank you.