

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

Panelists:

Margaret Hargreaves

Marah Moore

Beverly Parsons

Please note: The following is a direct transcription and has not been edited.

Margaret Hargreaves: We want to thank you for coming to this session. This is actually an update of a training that Beverly and Marah and I at the National Institutes of Health on Evaluating Complex Systems Change that we did in early 2010 and so, you'll hear an update of that training. However, unlike that training which was two days long, we don't have time to give you a day of an overview of understand different kinds of systems. So, we're going to collapse that into a very brief introduction by Beverly before we do our presentations.

So, I'll give this over to Beverly.

Beverly Parsons: Thanks Meg. What I would like to do is just point out a couple of things about this whole notion of systems. And if you were to look at, I want you to notice our title there. It says, integrating system concepts with mixed research methods to evaluate system change in Child Welfare Initiatives. Now if we had this session maybe five, ten years ago, this is probably what the title would have been. It would have just said Mixed Research Methods to Evaluate Child Welfare Initiatives. Because we were into looking at mixed research methods that tended to have qualitative and quantitative.

And so, what I want to really call to your attention to is the additional words that are now in this title, integrating system concepts, we're talking about integrating with this other method that's already there. System concepts with mixed research methods to evaluate systems change in Child Welfare Initiatives. So, we're getting beyond individual programs to the system change.

Now, just to push us a little bit farther, we need to understand the little bit about what is a system. What I'm going to ask you to do is just talk to somebody next to you and come up with your definition of what is a system. Just take a minute to talk with the person next to you and say, what is a system what is an example?

Okay, I'll call you. Back to attention here, you can wrap up your sentence that you're on and we'll get some definitions here. Okay, let's hear a couple of definitions that came up in your conversations. Well, I guess, this sparked quite a bit of conversation. I guess there was lot of definitions going on here. Okay, so now, you've had a chance to talk a little bit about your definition of what is a system. So, let's – let's just hear a couple of examples of what came up and somebody give us your definition that you talked about.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

Speaker: Linda and I talked about [indiscernible] [00:04:12].

Beverly Parsons: Okay, great, another definition another idea?

Speaker: They impact with each other. So, we both integrated [indiscernible] [00:04:41].

Beverly Parsons: Okay, okay, anyone else, back there?

Speaker: [Indiscernible] [00:04:48].

Beverly Parsons: Okay, great, great. So, that's a good example of a system. Well, we could keep talking here all day and get more examples from you and definitions. Let me just put up a definition that is one that comes from Donella Meadows who was our long time systems thinker. And I think we've captured much of this in what you said.

A system is an interconnected, so I do want to emphasize that connection. And it's a set of elements so there is parts here and it's coherently organized in some way or another and it may be many different ways of organizing and you'll see as we talk they are some times where it's more in a controlled kind of organization, more in a self organizing way and in a way that it achieves something. So, that what you were saying, there is some purpose here, there is something that's going on.

So, what we want – I'm not going to elaborate on lots of other characteristic subsystems and ways that you leverage those systems through selective interventions because that's part of what's going to come out in our three examples. So, Meg is going to give one examples, Marah's would be something different, she'll emphasize some differences and characteristics and I'll do likewise in the example that I give.

So, without further adieu, Meg, you're on.

Margaret Hargreaves: We really appreciate staff support at this point. So, thank you very much. It takes a village and I'll return to that concept a little later. Thanks for coming. The room is filled. You've had a chance to think about systems a bit. And so, we'll now talk about three very different evaluations but still around the concept of systems. I promised that we would talk about ourselves in our introductions so I'll do that.

I'm Meg Hargreaves, I'm the senior researcher at Mathematica Policy Research. And I first studied systems when I was doing my PHD program, my senior – my core faculty advisor was Michael Patton who has created medal evaluation which is evaluation of complex systems. And my PHD committee was Glenda Eoyang who is the director of Human Systems Dynamics if you know her work and also Bobby Milstein who created the Syndemic Network at the CDC. So, really I had a real opportunity to just study with wonderful teachers about system evaluation and I have been doing that work since I completed my PHD about five years ago.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

So, this is one of the evaluations that I worked on. It is – the evaluation that I’m going to talk about is it’s about supporting evidence based home visiting programs. And this program – this evaluation was sponsored by the Children’s Bureau of the Administration for Children and Families and the U.S. Department Health and Human Services, our project officers, Melissa Lim Brodowski who is here today, stand up Melissa. And she refuses to stand up and a wonderful set of colleagues, also is working with me on this project including Patricia Delgrosso, who might stand up if I ask her to. No, no one’s standing up, who gave a great presentation earlier today on culturally adapting evidence based home visiting programs.

An important colleague of ours is Deb Darrow at Chapin Hall. And you mentioned her at she was mentioned as the plenary for her great work on evidence based home visiting programs.

So, this evaluation is about 17 grantees and 15 states that were given grants to select home visiting program models that were evidence based. And to leverage these grant funds to build infrastructure to implement, scale up and sustain their selected programs with fidelity to their evidence based models. Now their programs are designed to prevent child abusing and neglect. And so, that’s really the focus of these home visiting programs.

There are lots of things that home visiting programs can do but these are specifically related to the goal of reducing child abuse and neglect. The grantees were expected to participate in local and cross side evaluations.

As I’ll say in more detail later, these grantees did not work alone. They worked with a host of partner organizations to build infrastructure in order to implement and sustain their home visiting programs over a five year period. We’re now in the midst of that five year period.

The grantees had five different home visiting models that they selected. And as you can see they were, the included the nurse family partnership, NFP, Healthy Families America, HFA, Parents as Teachers, Safe Care and Triple P. And so, these programs are quite varied. Their target populations include families and children from pregnancy to age 12. And they cover – they’re quite different models. And so, some grantees implemented one and others implemented more than one.

The grantees themselves were quite diverse. Four of the grantees were state agencies that were managing state-wide grants. Six of them were, six grantees were County governments or community organizations or hospitals that were partnering with other agencies to implement home visiting programs. And seven grantees were implementing their own, were their own implementers, they were the implementing agencies creating their own home visiting programs.

The also worked with a diverse set of partners as you can see. These included state and local agencies, other non profit organizations, healthcare organizations and hospitals.

Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to Evaluate Systems Change in Child Welfare Initiatives

And even universities and foundations. And also some of them worked directed with the developers to implement their programs.

Their goals were also diverse especially they were working with a wide range of partners. And as someone mentioned, there is this issue, when you work with partners, are they on the same page with you, are they, do they have the same motivations that you have. Well, we asked the partners what were their goals and motivations for working on this project.

And one in five, were interested in sided implementing home visiting programs as a goal. One in ten talked about wanting to build a continuum of home visiting care, adding to existing programs to create a full continuum of services. Other – the most commonly sided goals also included developing partnerships, directly preventing child abuse and neglect and also building infrastructure.

And so, the point we're trying to make with this is that, these aren't just single programs with a single agency with a very directive goal, these were very diverse, very different grantees working with lots of different kinds of partners. And some of them were more focused in their goals than others. I mean, if you can imagine hurting cats, some of these grantees had more of that experience than others.

So, let's talk about the design, because this is really a session on design and implementing this kind of evaluation. So, let's start with the overview of the evaluation. Mathematica and Chapin Hall at the University of Chicago were funded by ACF to conduct a six year cross side evaluation of these 17 grantees. The goal of the evaluation is to identify successful strategies for holidays grantees adopted, implemented and sustained high quality home visiting programs to prevent child abuse neglect.

And the evaluation, cross side evaluation was also designed using a participatory approach, we worked for a year quite closely with the grantees, looking at how we could augment and supplement their local evaluation plans, minimize our data collection requirements and how to make the evaluation reporting as useful as possible.

We also wanted to incorporate system evaluation concepts into this grant. And so, the first thing we did was, we defined systems from the view point of the grantees. We actually ask the grantees to define their own system in terms of who they were working with directly through services or indirectly through policy and planning to influence child abuse neglect at multiple levels.

We also wanted to focus on developing infrastructure capacity. And we – we identified eight different kinds of infrastructure that I'll talk about later. We also defined systems change as looking a system in terms of the scope or the boundaries of the networks of partners, looking at the relationships of the partners, how are they working together. And then looking at how close, looking at the perspectives of the partners, how closely aligned were they in terms of achieving the program's goals.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

And did those three things change overtime? So, that's one approach we took to evaluate systems change, look at the scope of their work change to the relationships or the kinds of partners they were working with change, and also did those partners become, are they becoming more aligned in terms of their goals and perspectives.

What's an evaluation design without a logic model? So, this is – this actually if you look at the very center of it, you can see the core of a linear program evaluation theory of change. You see the home visiting supporters over on the left hand side, working towards specific goals with activities that lead to infrastructure change which lead to improve fidelity of the evidence based home visiting programs which are meant to achieve better home, family and child outcomes.

So, if you look at that, you see the core of a traditional logic model running through this that, but around it is this big blue bubble, that's the system part of it. And so, one of the things we're trying to understand is to support this stream of activity, with kind of infrastructure capacity, are they building to support these activities. And then, how does the nature of the system itself, how do it's boundaries, how do it's partnerships and relationships change in order to build the infrastructure that then supports the sequence of activities.

So, it's sort of like the fairytale, the house that Jack built, you know, everything builds on something else. And so, you have to think of the surrounding system and system supports and how they lead to the sequence of activities that result in particular outcomes.

What this tells you is that we're not only interested in this core pathway but we're also as interested in the context. Very often people think of the context as sort of a unit dimensional backdrop or a curtain, and then the program takes center stage and the backdrop is the static thing that doesn't change throughout the life of a program. As Beverly mentioned, we conceived of these systems as being very complex and dynamic. So, that the background was also changing, which changed what the grantees were doing.

So, as Patricia mentioned earlier, there was – there are several domains to this evaluation. One of them is the process, what do the grantees do. The outcomes, do these programs achieve or improve child and family outcomes, the costs, where they cost the program. The fidelity, did these evidence based programs, were they implemented with fidelity to their original programs. And we focus – this part focuses on the systems change. How do the grantees build infrastructure capacity to implement with fidelity and scale up and sustain the home visiting programs? So, thinking about infrastructure capacity is the system in which the programs are being implemented.

Each part of the evaluation had its own kind of design. The child and family outcomes domain is using a summative approach, doing a review, the rigor of the outcomes evaluations of the local evaluations. The process study is using a formative approach, looking at how the programs are being implemented and what can be done to improve that implementation.

Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to Evaluate Systems Change in Child Welfare Initiatives

The systems change study is using a developmental evaluation approach. And I encourage you to Google that and to look at some excellent books by Michael Patton on developmental evaluation. It's quite different from formative and summative evaluation. And we used it in this study to track the development of the infrastructure of the programs. To track the evolution of the logic models of the programs is that it interacted with their environments, to monitor the system boundaries and goals and relationships and particularly to use social network analysis to measure the qualities of the networks of relationships inside those systems.

So, what is this – what is this developmental evaluation approach? Well, we ask these questions, how do the grantees define their systems? Who or what is inside their systems? What is change involve and look like? How should we measure this systems change? How are the grantees adapting to their complex environments? And are they changing their approaches in response to their environments?

And we'll talk more about this but it's easy to assume that programs live in static unchanging environments. That assumption couldn't be farther from the truth in this program evaluation. The experienced and had to adapt to a crushing recession, a temporary loss of their grants. And then now there is this movement with the state MICHV program coming in as they are adapting to that being implemented.

And so, how do the grantees react to these changes and their environments? We also used a sort of social ecological approach to look at the multi level nature of these programs that came out of a literature review in which we found out that in order to support implementation scale up, typically grantees do work at multiple levels. We also in our literature review found out that there were eight kinds of infrastructure that are important to implementing scaling up and sustaining home visiting programs. And so, use those eight kinds of infrastructure, sensitizing concepts and looked for them in what the grantees were doing. And so, the eight are listed below and I'll talk more about them in a bit.

So, in addition to those developmental valuation questions, we also used mixed research methods. We looked at the grantees specific evaluation plans, their local evaluation plans. We looked at how they identified their theories of change in their logic models. We are working with them and just recently updated their logic models as they are adapting their programs to their changing environments.

We're going to do, we did a baseline social network analysis survey along with some other collaboration questions and goal questions, to get a baseline understanding of the relationships among the partners in those systems and potentially we'd like to do a second wave of possible. We also are looking at the grantees specific reports of their progress and their own discussion of the challenges and how they're addressing them. We're also tracking their development through false progress reports, site visits and their what they say in pure learning network calls. So, all these different methods are being used in the systems change domain.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

So, what are we finding? As we suspected the grantees are working in very complex dynamic changeable environments. And those environments have necessitated changes in their programs, those changes included in unstable economy, severe state budget cuts. Loss of grant funds, temporarily.

And so, what that did is it led many of them to focus immediately on physical capacity. I mean, if you – if you think that you can worry at the end of five years, about your financial survival and then six months into the program, aha, you have to worry about your financial survival that really changes the focus and importance on physical capacity. So, many of them worked, focused more on building physical capacity early in their programs, sometimes at the expense of other kinds of infrastructure development.

We also found that partners were very significant in helping them carry out the planning and early implementation of their programs by carrying out joint activities, joint planning, sharing resources, sometimes stepping in and replacing missing funds that had been promised by other partners. Making very, and making very strategic decisions about which models to select, which program locations to use, what kind of evaluation to implement. The partners are very important in those early decisions.

I know this is hard to read, but this is an example of a multi-level logic model. This is a generic one we use that in working with the grantees to update their own logic models. Each grantee is using a multi-level logic model. They all have unique pathways to the three goals on the right of implementing, sustaining and scaling up home visiting programs.

They were some common activities especially at the national level all of them were involved in the cross side evaluation and in working with the developers. But the other levels really dependant on who the grantee was whether they were a state agency, if they were, they were more state level activities in their logic models. But it was also very interesting to see the variety in what they were doing at the community level and at the local level to implement their programs.

You'll be able to see the 17 grantee logic models in upcoming reports. So, what else did we find, we found it, they really focused on three kinds of clusters of infrastructure. The first was just foundational that they have the capacity or improve their capacity to plan with other partners and to learn how to collaborate and work with partners. For those that were just starting up programs, did they work with their partners on basic operational issues of startup?

They also worked on developing the capable and high quality workforce that can implement the programs. And then to help sustain the programs, they were – they were also working on their physical capacity, they had to work on create, finding evaluators and developing the valuation, communicating with others about their programs and building political and community buy-in and support. These were not in the sequence. We found that the grantees were working on all of these areas at the same time although at different levels of intensity.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

We also realized that through the partner survey, we found out how important the partners are to – how essential they are to infrastructure building. These programs need partners at multiple levels to create multi-level support for high quality programming. You can think of the idea that no man is an island or it takes a village, or that you can think of programs as being creatures of their environments. All of those efforts and these are true these programs were not implemented solely by the grantees, but in collaboration with a great number of very active partners.

In an analysis that we did for a journal article that's coming up, we found out that some systems were more active than others in building infrastructure. We also found out that a very important predictor of system activity was goal alignment. When the partner shared goals, there was much more infrastructure building activity.

And also we looked at the motivations of individual partners, what motivated individual organizations to work on these programs. We found that they were more active in building infrastructure and they perceived that there was a high quality of collaboration among their partners. I mean, if you think about it who willing to stick your neck out if you think others won't reciprocate. But if you think of everyone collaborating and you become a partner in that collaboration.

So, we'll continue to see what the local evaluations are doing. And we'll continue with the national cross-side evaluation. You can contact me for more information. I have also created a planning guide for how to evaluate systems, change evaluations if you contact me, I can send that to you. Very importantly for this home visiting evaluation visit the website, there are great reports on the website about the evaluation.

Now, I'm going to hand it over to Marah.

Marah Moore: Okay.

Margaret Hargreaves: We have time for just a couple of questions before we switch over, any questions? All right.

Marah Moore: All right. I want to change this while I see people writing. Okay. Okay, my name is Marah Moore, and I'm the director of IDI institute which is based in New Mexico, that's incurred inside we do planning and evaluation work. I've been working in evaluation for about 20 years. And over time as I worked on more complex initiatives, I moved more and more into a system's framework for thinking about evaluation.

I spent about a decade evaluating the community based family preservation, family support services in New Mexico. And for about half of that time, I was very lucky to work with the program manager, who really wanted to understand the systems and the role of the systems and changing things. But because she worked in a much larger system, her approach was always appreciated. So, she ended up moving on and the

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

evaluation unfortunately became much more focused on very simple outcomes for kids and it lost its system's perspective.

I also in part of the cross-side evaluation team for the quality improvement sent on early childhood, where we're implementing a system's focus, cross-side evaluation process. And what I'm going to present today though is I'm going to talk about a tool that I've used in a lot of different complex initiatives. But I'm going to demonstrate – excuse me, demonstrate it through the work we did on an early intervention project in Russia, which involved a lot of fairly major systems change approaches. And this is a – really going to be a teaser because there is a lot more I could go and do.

But I'm going to give you little pieces, they'll be a handout available on the web about this tool for people to go to as well as obviously the PowerPoint. If you do go, look at the PowerPoint, I've taken all the pictures out for the web based one. So, it won't look familiar but I don't want to broadcast photos of these people who worked with that publicly.

Okay. So, basically we were looking at an early intervention project in the far east of Russia, it was based in Vladivostok, which you can almost see, if you look from the west coast, west. So, the background of this project is, children who are born with disabilities in Russia end up having very portable middle outcomes. They're often institutionalized, I would say most of the time, any kind of disability tends to be institutionalized because primarily because families lack supports.

I mean, one of things we found out is families really want to keep their kids at home. But the supports aren't available for them to do that. The idea of inter-disciplinary work and or family centered services has been pretty unknown in that part of the world. Ineffective supports at all levels for such services, there is no policy support, these social institutional norms are counter to the idea of family based services and interdisciplinary services. Everything is very syloid and families are very, marginalized.

There is a lack of medical expertise around child development. It is in particular around the neuro-biology of child development. So, interventions that are being put – that are being done cannot be based on current research. Family structures are not setup to support family based work. In particular, when children are born with disabilities, it's very rare for the father to end up staying in the family, typically they'll leave and that sets the mom up for having to raise this disabled child on her own. And so, she's encouraged by this system to institutionalize.

And here, the pediatric neurobiology, in the treatment of children with disabilities is really lacking. And the systems are very controlled, they are very bureaucratic, very controlled, there is very little room for adaptation and innovation.

So, in a nutshell, this project was looking at abandonment prevention, it was based out of a small U.S. organization that was working in Russia primarily had one year of USA ID funding. We worked, there was a Russian U.S. partnership, we had a team of early

Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to Evaluate Systems Change in Child Welfare Initiatives

intervention experts from mostly based out of the University of New Mexico, who are partnering with some early intervention experts at St. Petersburg.

The focus was on developing inter-disciplinary teams and embedding the idea of family centered practice. As well as bringing child and family assessment, there wasn't really any child assessment happening, any kind of standardized assessment and the concept of team consultation across these inter-disciplinary teams.

And broadly speaking, the focus was the systems change model, looking at changes in the medical system, changes in the educational system and changes in the family support systems. And we were looking at a systems level, we were talking with policymakers, we were talking with institutional directors, and we were working with care providers. And we were bringing policymakers, two sessions with care providers, we were doing training, you know, with the same training that we were giving the care providers was also, we were inviting policymakers to come and learn so there was a lot of real cross multi level work happening.

So, here is just a little bit. System's thinking as a discipline for seeing holes, it's a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots. And I guess, this is a different version so we got some funny little characters in there. But this shows a picture of the children's hospital, this is women in the maternity hospital. This is not an unusual picture around the environment that people are living with, imagine pushing a wheelchair across that sidewalk, do you want to call that.

Okay. So, thinking about a complex human system and innovation or initiative must be sensitive to its environment. In other words, we have to see what's happening and be able to react quickly. You have to have information about what's going on and have a sensitivity to be able to see that and react. You need to be flexible enough to respond when you see what's happening in your environment. And the system needs to be robust enough that it doesn't fall apart when challenges are there.

So, the evaluation of this project consisted of contextual data. There was a needs assessment that was done up front a very thorough lit review. We collected basic process data, lot of observation interviews, Focus Group Service Delivery Data. The outcome data was standardized child and family assessments. And the systems change analysis, we used the seven seas social change framework that I'm going to talk about here.

The seven seas framework gives you – provides a conceptual framework for how system change happens and how it's sustained. It's a uniform structure that can be adapted across multiple disciplines. It guides, iterative to planning and action at multiple levels. And it provides a way to align process measures with outcome measures. So, basically when you think, when we think about change, we think about having a change agent.

So, you've got the organization or the grant or whatever it is that's in-charge of trying to make change happen. And then you have changes in the system which and think about

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

this changes in programs, practices, policies, resources, institutional norm, social norms. The seven seas framework adds in the middle of that, this idea of a social change movement.

So, for example, in this, in the early intervention project that I'm talking about, one of the things that was really important, because we went in and we were leaving. One of the things that was important is that this became something that was carried and diffused through interest and excitement across all of the systems. The change agent wasn't there to do that, we were there to embed and set the conditions for larger scale movement around to excite people about this idea, train enough people that it would hopefully start to catalyze a much larger movement.

Basically it consists of five, I mean, seven different areas looking at connections, communication, coherence, constructs, commitment, continue assessment, and then capacity building around those other six.

So these are the areas in the framework, they're separated, but the idea is, you can't take any one of them and talk about it, everything is interrelated, they're all lenses that you can use to really see what's going on across the whole system.

So, for this project the change agent was the US based organization, it was the Russian-American team, it was the polyclinic which is the main clinic we work within Vladivostok and it was the early intervention team that got pulled from various different organizations and trained.

The social movement was the organizations; all these people from there, from the early intervention team went back into and started embedding these new ideas in the various separate organizations.

And systems change, we saw in the polyclinic systems, but we started to see across the entire, the entire Vladivostok area. So, I'm going to very quickly go through what we found at a systems level, I don't think I have time to go through the change agent or the social change a little bit, but I'm going to just give you a snapshot of what we found at the systems level.

So, in communications, the indicators of success and I've simplified this, but is it the family would become the hub of communication, cross agency, cross discipline systems would be in place.

What we found is, the team started having cross agency, cross agency team meetings that had never existed, agencies didn't even talk to each other. So, having regular meetings cross agency for this team was remarkable. And here is a quote that one of the team members said that, I never believed that I would feel this way about families that they can participate in the treatment of their children.

Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to Evaluate Systems Change in Child Welfare Initiatives

Now, I know it is the best way, this was an about, took about six months. And the entire team was transformed. We had so much pushback about, parents don't know, you can't talk to parents, you can't involve parents, they had no idea what's happening with their children, transformation in a very short time continues assessment.

The indicators of success here were that reflective supervision and peer consultation models would be embedded in the team and that developmental assessment would be routine and would be used to guide practice. And the peer consultation model was in place again, a lot of pushback on that one, the idea that peers has learnt from each other.

Developmental assessment was beginning that took a lot longer to put into place to get people trained and willing to do the one on one work with kids and families.

Coherence, the indicators of success were that an institutionalized early intervention model would exist across the systems, across the educational systems, across the medical systems, in the maternity hospital, in the children's hospitals, I mean, here you're looking at babies are born here they immediately go, here there is no communication, it's not the same institution, it's not the same people they don't talk to each other.

And that these systems would include families at every level. What we found was, team members practicing broadly. So, basically they took what they learned and they practiced in their individual organizations. They weren't just doing it on their specific project teams.

The families were integrated the polyclinics, certainly there was a family room or resource room there were places like that, people thought about families, amazing transformation, the director of the clinic, who again, families were marginalize, she tried to integrate this family-centered practice approach into everything that happened at the clinic, not just early intervention work.

And there was a commitment to the model at multiple levels, we are talking with the Department of Health, and there was a lot of interest there, Department of Education was a little bit slower, but constructs the indicators of success where that having the early intervention team in place and stable financially, parent group in a resource center having in place.

And basically, the early intervention team was there, I'm going to talk in a minute about, what happened with the funding because it was remarkable, there was a parent group that was functioning and continued after we left, a children's group for children with disabilities. And a resource center, so that parents and experts as they continue to call them, we're able to get the most current research on what was going on, the most current information about various types of disabilities.

Connections, interdisciplinary team referrals expansion to other resources and these things happened, there was an integration of team working all levels, but the families,

Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to Evaluate Systems Change in Child Welfare Initiatives

with various colleagues across the system, it really did start to catalyze that and everybody who is involved.

The commitment piece was one of our best indicators. We were looking at allocation of resources and expansion by the team members. This woman is the director of the clinic that we worked with, she was our largest barrier when we began. This was a grant, they wanted the money, they didn't want to be told what to do, you know, the idea when we went in was to do the minimal possible to get funding for staff. And that's not just in Russia that happens everywhere you got a grant, you try and do what you can and you take the money and use it for what you know you're doing.

By the end of the project, she had commitment substantial resources to fund the early intervention team many of which were not her stuff, they were from other organizations. So, she became our strongest ally by the end of the project -- but to say, she was our biggest barrier.

Capacity building ongoing training, and supervision that was the piece that was the most difficult to sustain because the project was one year. And it wasn't refunded for a lot of political reasons. But they were able to maintain some relationship at the St. Petersburg folks.

Okay. So, some reflections going back to the idea of flexibility, sensitive, let's start with that. We found that, having a family-centered practice in place, having families there, clearly made the environment for working with these kids more sensitive, the families were with these kids all the time, they knew when change is needed to happen, they knew what was going on. So, there was a built and sensitivity in the system if you involve families and that's what folks started to see.

The developmental assessments also started to pick up that shape putting those into the system, heighten the sensitivity of that system tremendously because you could see on a very regular basis, what was and wasn't working with these kids. And the relationship with the team partners also heighten the sensitivity of this system to meet the needs of kids because you had, you know, speech and language pathologist, you had pediatricians, you had neurologists, you had early intervention educational specialist, full range of folks working and they were able to as, one of them would talk to the others about something, you were able to sort of respond immediately and maybe a speech and language problem that pediatrician picked up.

And in the conversations, the speech and language pathologists would be able to address it. So, these are things that really heighten the sensitivity of the system, the flexibility of the system, again family-centered practice bringing the families in and working with them as partners meant that change was able to happen, there was a flexibility in the work with the kids because the families took ownership of it, they were willing to go home and do what needed to be done and change course.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

They were also able to make demands about what changes needed to happen because they were at the center and they were listened to, before parents won't listen to. So, the system wasn't flexible around families' needs as families became more involved, the system became much more flexible, when there was a real commitment to family-centered practice.

The interdisciplinary team, same thing a problem would arise over here, the pediatrician wouldn't have a clue, so he would be able to talk with other team members and they were able to be responsive because it was a team approach, I mean, you guys know all this, do you do this work here. But it was amazing to go from where the US was probably 50 years ago and to watch this happen so quickly. And support from the polyclinic administration that went from a lot of rigidity to a very flexible, we want to make this work.

And the basic values of family-centered practice and the interdisciplinary team created what ended up being a very robust system as funding was threatened, the system responded because there was a fundamental belief in these principles and so they made it work.

The challenges we came up with were communication across the broad system, there was very little and it was hard to build that and it takes time, a lot of stigma around disability is that was starting to a road. But again it takes a lot of time and then the territory issue, fear and protection of territory with limited funds.

The system was fairly constrained in terms of flexibility. The maternity hospital for example had limits on what they were able to do with babies. And yet without the maternity hospital being able to respond, it was very hard to deal with issues that came up at birth.

Resources extremely limited and people were still dealing with multiple bosses, you had this interdisciplinary team that was funded through the clinic. But people also had their bosses back home, they had to be answering too and it was really hard to know what to do with that.

I'm not going into these. So, there's a beautiful picture of the see off of and that's a lot of our stock really were. Oh, questions, any questions?

Margaret Hargreaves: It's really interesting and in fact that you were able to go in so quickly, almost change mindsets and getting that needs to be involved and it had in your minds. So quickly because the grant was so short, you kind of achieved that. Who would you credit to being able to do that something?

Marah Moore: It was a miracle, I mean, I'm still, we were just, this is five years ago and I was just talking with somebody I worked with there and we said, we need to go back and figure out why this worked. I think it was a combination of money, people wanted the money and we were really adamant that we weren't compromising the fundamental

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

principles and once people saw them, it was, it worked. The other thing was we had Russian partners. So, there was a credibility peace.

The other thing, which was countered intuitive to me, but was very interesting, there's a lot of, lot of respect for experts in Russia. And if you go in as an expert, there's a lot of difference, which as the system changes that begins to change. But it gave us an in and especially working with the Russian partners, there was a lot of openness because we had, we had a developmental specialist in our team, we had a neuro pediatrician in our team, we had speech pathologist on the team, I mean, there were number of people who came in with expertise and the culture is one of respect for expertise.

So, that was another really big thing that creates space. So, I think it was the combination, it was the partnership with our Russian team; it was that sort of funny thing around experts. And it was the fact that we came in with money and they wanted the money. And so, they were willing to do what had to be done. So, we were able to demonstrate that it worked.

Marah Moore: Your theory presumes that you have to create a social change movement actually a number of systems changed. But, what about in Child Welfare where Middle Managers are leaders really are the change agents and they're embedded in the system. Does the social change movement still have to occur?

Margaret Hargreaves: You know, I think, in some way or another, yes. Because I think Middle Managers can't change their specific little system unless there's buying at a policy level answering things, I mean, there are policy constraints, there are constraints around more, around broader institutional norms. There are constraints around social norms.

And those, the idea that one Middle Manager can change something and how that really take, I think it's partly why we are not seeing the changes that we'd like to see even though we're all working so very hard to make them happen because getting buying at all those levels, I think it does take, you know, it takes really different forms, it may not be a social change movement. But there has to be a paradigm shift in a lot of these things, I think to see that kind of change.

Speaker: Which leads us very nicely to Beverly's presentation?

Beverly Parsons: Thanks, Meg and Marah. Actually, it does lead in. Let me see if I can get our slides up here. Since, I'm a Mac user, I always have trouble figuring out how to do this with –

Speaker: Thanks, let me just put over to where we were. The particular situation that I'm going to talk about is one that's related to a paradigm shift where we are trying to change the system to operate on a different paradigm basically than what it has. And by that, I can refer back to Marah's presentation because basically what she was talking about was, they were bringing about a paradigm shift, they were making a shift in toward

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

family-centered approach that hadn't been there, they're more flexibility in the system, collaboration, peer consultation, those kinds of things. So, they were really making that kind of a paradigm shift.

And one of the things that for people who are, who have been studying systems for a long time, Daniela Meadows is a person I mentioned earlier, she has a list about 12 different levers for changing a system. And the most powerful one are the most powerful is to change the underlying paradigm.

And the idea is that we often do not realize the underlying values or systems paradigms that we are operating from such as the one about not being family-centered, they probably hadn't even thought about that really, it was pretty unconscious they weren't doing that, somebody brought it to their attention, they got results and things started to happen.

So, that's the dimension of systems that I want to emphasize right now is two things, one is, this notion of getting down to the underlying paradigm that shapes your system and the activities that go on.

And the second is, to pay attention to this notion of the dynamics that are in the system. And I want to particularly mention in terms of dynamics is much of the research that has been done like with RCTs and so on, is really based on a closed system that underlying. If you look at what's underneath, those methodologies, they assume oppose system, they try to control everything around it and then look at the system as if those other things don't much matter, they're just noise.

And another type of dynamic is what's called the self organizing system and that is that you, there maybe some places where you can control things, but you also recognize that there's a different kind of organization, it's a self organizing dynamic and what's talked about there is really that there a lot of different agents and you know, we're all agents in a system. And we're bumping up against each other and we're starting to shape the system in a way that nobody can actually control. And when you actually look at it that's most of what's happening in our systems, you know, we clearly have some higher articular structures and some things that are controlled, but individually we're all bumping around with each other.

And what's happened with our research methods is, we haven't paid attention to that, we've treated that as noise, we only structure our things to look at those things we can control. So, as we get into talking about system change and different ways of doing our research, one of the things that we want to pay more attention to is, how do we get out this notion of self organizing and follow that, look at that, understand it.

And I think many of the things that Marah just talked about are ways that they were starting to get at that, you know, the communication patterns that were going on, some of these other things that we really designed to look at the self organizing part.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

So, the example of that I want to use here is, the one from strengthening families, which I think how many of you are familiar with the strengthening families work, okay, a number of you are. And this is work that's being done through the center for the study of social policy. And I think Lee or someone this morning mentioned it in the opening session.

The idea here is to try and identify and what the center for social policy has done, is to identify these five underlying what they call protective factors. So, that instead of focusing so much attention on risk factors not that, you know, we tried for a long time to get rid of those risk factors. Here they're saying, you know, some of those we can get rid, but some of them, people that, we're not going to get rid of them. What we need to do is help people know how to live within some of those contexts.

And the idea is to build up these protective factors such as social connections, knowledge of parenting and child development, providing, helping them have concrete support in time of need, building parental resilient and really coming to understand the social and emotional confidence of children.

So, these are those underlying protective factors that strengthening families wants to bring in as the fundamental paradigm that underlies the system. So, basically what they are trying to do is bring about system change to have a new underlying paradigm.

And so, this is a, you know, particular orientation toward changing a system and to do it by getting down to the underlying paradigm. Now, Pat has some handout. So, she's going to help me. This obviously, you can't see just from where you are, can I take this off here...

I'm going to just walk over here, so I can just point out some things to you as we look at this little diagram. What this diagram is attempting to do is to give us a framework and a theory of change for how, what we need to pay attention to as we are trying to change an underlying paradigm, so that we're getting down to a deep system change.

Now, down on the, over on the left hand side, we have different aspects of the system and they're labeled as points of influence that's because these are places where you can start to influence that overall system. And in this case, we're talking about, first of all, at the caregiver child level, another one that part of the system is that neighborhood, community, aspect of the system, the organization, the programs broke that into two parts, one is about the learning and capacity building. And the second is about the norms and the policies that are within an organization.

The next category there is policy and social norms at the state and local level. So that has more to do with that broader environment. And finally and importantly, the whole notion of partnerships and connections, you've heard that in everything that all three of us have talked about is connections, partnerships and what a difference that makes in a system.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

So, what we've done here is to say, okay, these are all parts of the system. And if you really want to have a new paradigm, all of these need to be influenced in some way. Now, the trick is, how in the heck do we kind of keep tracking and see what's going on overtime because this is a, this kind of a system change is a very dynamic thing, it bounces around, things happened here, it happened there. And what you're trying to do is get a sense that we're gradually moving toward this new paradigm.

The categories across the top hopefully you can see these better on your paper there. But, we started out by saying the first thing that you want to do is get some sense of the baseline understanding of the extent to which these various things are in place. And if you look down this list, you'll see that what's there are looking to see if those protective factors, I think understanding to close to that. The protective factors are in place into what extent they're already there, because if they're already there you want to just highlight them and get the people to recognize them and see them and build that up. The other thing that is built into the side is this notion of playing with both, the organized dynamics, those more structured things and those self organizing dynamics.

So, we're trying to have by this baseline assessment, get the focus on, the extent which she's protective factors are an existence, and secondly the nature of the dynamics. So, we start to think about that.

So, with that in mind, then the next step here is to try out interventions. So, people would be trying out lots of different interventions in different situations that start to implement those protective factors. The next, I'll come back to this in a minute, but the next category over, which we're calling the tipping point. And that's where things start to tip toward the protective factor orientation being the dominant one, you know, how many of you have read that book tipping point by, Gladwell.

And that idea, something happens, it suddenly, it tips over. And I think that's what was happening in Marah's example, they got to that tipping point because enough things were happening that reinforced for people, this is the way to go, this makes sense. And that's we're looking for here.

And now, my last categories the one that particularly intrigues me and that is, we've labeled that as sustainable adaptive balance. We don't, we didn't label that as protective factors now firmly in place because that's not how it is, things keep bouncing around, other things come into the systems; something new comes along.

And what we're looking for over there is this idea that people can keep that in mind and adapt as new things come along, can rethink, okay, we're bringing in this new program, now how does that affect this work that we're doing that's grounded and protective factors. Does it have a common paradigm underneath it or is it in contradiction?

And so that's what that last column is really trying to emphasize. So, the idea with this is that if you were to – would be doing an evaluation. And in this case, with strengthening

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

families, there are like 35 states at least that are doing some version of strengthening families.

Now nobody has the money to do a big national study at the moment at least around strengthening families. But, what people are doing is saying, well, you know what, we're focused right now on learning and capacity building within our organization.

Now what are some of the things that we should pay attention to that might help us see that we're moving in that direction. And somebody else might be focused on policy or you might have within a given state, you know, five different studies going on that are in different parts of this.

And one of the ways I've used this in a former situation was that, we bring people together who are all working in different parts of the system. And they would actually have big chart like this up on the wall and would map out where they are. So, that a group that's been working at the community level say, you know, we're way over here in terms of work with our community and the policy people say, well, heck, you know, we haven't really done anything, we haven't even kind of assessed where our policies are, but we're just starting to try something out.

And so, the collective group that whole partnership can start to see, what's going to take that we don't get a big disparity between some being way back here and some parts of the system being way over there, it's like stretching a rubber band too far it, you know, it will pop or if you play it right, you can get that to pull in that direction. So, then people collectively can see where the next part of their energy can go.

So, the idea with this whole idea is to say, basically two things, I want to emphasize is, this notion that if you really want to get a deep change and one that really influences the whole system get down to what the underlying paradigms are. So, like if we were back to our notion of doing RCTs instead of doing an RCT around a particular intervention and a particular set of activities, find the paradigms that underlying a number of different interventions. And then structure it somehow or another to look at those and then you can get more of, more power around and more appropriateness for your RCT because it's not so constrained.

And then you can look at these interventions impact in our next session that Marah and Pat, Pat and I are doing and the listeners, we'll be talking about how that works with the quality improvement center, which is another project that Melissa is funding. So, that's the basic idea here is to pay attention to paradigms and pay attention to the kind of dynamics and the systems and looking at multiple parts of the system in your evaluation design. So, comments or questions before we open up generally.

Marah Moore: So, you've heard three really different ways and three very different perspectives that looking at systems and yet there's some commonalities across them, you've heard from my presentation and the other two about the importance of thinking,

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

about the connections within a system. And how those connection change and how those connections really can push a system and prepalate forward.

You've heard about the importance of communication, how that's an important capacity in home visiting system that's also been important in Marah's. And also, it's used in Beverly intervention. And that people begin to communicate with each other what they're doing and how they're comparing what they're doing and how what that means for the larger system.

You can think about multilevel issues where in the home visiting system, we talked about state policy supporting and being an important part of building infrastructure for home visiting programs and how and Beverly's wavy diagram, which is what I call it a wavy diagram, a policy is an important point of leverage within a system.

And again when you think about, when Marah had to go in to Vladivostok, she needed credibility, she needed a very important partner that really could push the keep players in that system to become part of the intervention. If you think of other things that are consistent across our three presentations, one of the points of leverage in Beverly's presentation is the community buying peace that also community buying and political support was also found to be an important infrastructure lever.

We tend to think very narrowly of resources is being one of the most important levers and a program, you know, fund and they will come, well, yes, that is true. But as you see in our presentations it is, there is a system theory or system terminology called a tractor absolutely funding isn't a tractor, it pulls people together in ways that it wouldn't have that they might not have come together. But it's not the only a tractor, we heard across the three presentations how having common goals, motivating people to work together towards a common goal is really another important lever of systems change.

And so, in some ways, although they seemed like three very different presentations, you could hear common levers, common aspects of all these three system change projects and evaluations that can help point you to what you should look at and evaluate, when you're evaluating system change. So, questions, any question is a good question, really, any question is a good question, yes.

Speaker: Well, at least two of the presenters have mentioned that there was funding, there were funding challenges and that your agencies were able to over come that, which is interested in kind of the overall count on that thing?

Speaker: I know in the home visiting evaluation, the grantees that had created longstanding collaborative partnerships with other players and had already reached and created system paradigms or principles on which they were, towards which they were agreeing to work with other people, really could use that preexisting commitment from those partners to say, we're in a pickle, it's temporary, can you help us out.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

And especially foundations and state agencies among those partners it's important to cultivate the pocket partners. And so, several of the grantees were able to call upon their preexisting relationships and say, help us out, we think this is temporary and people really could step up and did step up at least in the home visiting evaluation that program.

Well, the other thing I would say is, the director of the polyclinic did step up and offered to provide some funding to incentivize the team to keep meeting. But, now this is overly simplistic, but I've been known to say that systems changes by definition self sustaining that when you change the paradigm, when you change the way people think and the way people behave often you incentivize that with funding. But, it often can be done with the same funding that's how it's been in the system when you start thinking, it's about how the funding is redirected, it's about the paradigm within which we work and looking at more affective paradigm.

Now, I'm not saying we don't need funding for our programs, but I'm saying that there are parts of system change efforts that aren't about funding, the funding is that a tractor and often it needs to be there to get people to be willing to do things, but its in many ways and many places it's not necessarily to sustain the changes in the system that you're trying to an act. Yes.

Speaker: Sort of moving on that, have any of you looked at sort of – system change, particularly agencies contributing to approximate prevention of intervention?

Margaret Hargreaves: I know, in the home visiting evaluation, fiscal capacity included that category of looking at ways to leverage multiple sources of home visiting funding. And actually to create a system that could pool and blend because home visiting money comes from so many sources, it's important to be able to figure out a way to coordinate those programs and to blend those sources.

And so, especially when grantees were at a state level, they often had meetings and create strategic partnerships between the Public Health Department, the Social Services Department, the Early Intervention Unit, and the Department of Education. So, that they could look at those different parts and figure out a way to de-sylio eyes that funding and to create a common, if not to cross fund programs to at least create common infrastructure like common training or other common things that could be used across the systems.

Speaker: [Indiscernible] [01:16:15].

Margaret Hargreaves: Well, you know, with this new home visiting program, the benchmarks are really pushing grantees to think about that. And I know that one part of the sustaining infrastructure in the home visiting programs was to build evaluation capacity. And some grantees actually had for example Utah had no state home visiting data collection system. They used a lot of their money to create a statewide system for collecting home visiting data. And specifically to bring in partners from different programs to make that system useful to multiple evidenced based home visiting models.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

Marah Moore: I was going to say that, years ago, I worked with the program in Missouri where we did that, what was really the legislature had passed funding to work across five agencies and it included education. I was at the education commission of the state, at the time which is in interstate compact that works all the states.

And we were working with funding from a foundation that was trying to build links between education and social services. And Missouri was an example at that point of doing that vary thing and they actually, among the five agencies, they appointed one person to kind of hunch overall work. And they were working on data basis. But I haven't kept up with that, so I'm not quite sure where that stands at this point.

Margaret Hargreaves: Let me add to that linker to your question. Also, when you think of evaluation is the end point, there were several grantees and home visiting that were creating central Tria systems. So, thinking about a coordinated intake that also takes quite a bit of inter program effort to create some common agreement about what is the Tria system where will people go depending on how they're assessed and then to create a centralized intake. And so, that's an important piece that many of the grantees were working on.

Hara: Yes.

Speaker: [Indiscernible] [01:18:40].

Margaret Hargreaves: That's actually an important. The getting point for centralized intake and I know that several of the grantees were working on creating a common screening tool that is a very important piece of bringing together disparate parts of the systems. So, that you even have agreement on what the family needs and where they're at.

And then some agreement on a protocol for given where they are, if you have a continue among the services, it's not just the winner take all, the agency assess the family, gets the family, there has to be a more accruable distribution where you say, well, they don't, they're not as high risk, they should go to ex program, these people are very high risk, we agree that they should go to a different program.

So, it really touches on, touchy territorial issues, when you think about this where people reach a common good and say, all right, let's think about our programs cooperating, let's think about distributing the families among our programs in a way that really supports the families in the best way. Yes.

Speaker: Are you using this snap as a guide for evaluating the strengthening families program?

Hara: Well, we're using it as more a reference point as different people are working on doing the evaluations of strengthening the families in their own states. And so, we've

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

presented this at a number and we'll get the strengthening families submit that was held in June.

So, I wouldn't say that we're using this right now for one overall evaluation. We're also using this as kind of jumping off point for the work that we're doing with the quality improvement center and early child to it. But again, it's not trying to look at all of this.

Margaret Hargreaves: Listeners make you want to go do a systems change initiative and evaluation. Yes, in the back? And then I'll get the other back.

Speaker: **[Indiscernible] [01:21:03]**.

Margaret Hargreaves: We've just barely got into the point where we agree on a definition of systems. And so, that's great, they taunt already in the room, but that, I'm not even sure we can't get there, given how many perceptions there are about, what our systems and what our important aspects of systems, what do you guys think?

Marah Moore: Well, coming up with a standardized tool, I assume that you have standardized indicators. And within a system, what change looks like is so depending on what that system is, and Meg had mention the idea of sensitizing concepts. And Beverly then talked about principles underlying paradigm shifts.

And when you're looking at basic principles that drive change and whatever area you're in or you're looking at the sensitizing concepts, it's hard to standardize and instrument around those things. So, in terms of standardizing systems change, it's so depending on what the system you're talking about is, you can, the other thing that's I think is important is that you can use a lot of the same tools that you use in your evaluation anyway.

But, the way you combine them, the analysis, the sort of mid analysis that you take from them to think about the patterns that are evolving, as you look at tools that you're used to using, standardized tools, thinking about what's played in the change in those is how you start to get to the system piece. So, it's not a tool that measures the change in the system, it's a way of approaching, designing and the framework that you analyze your data within that, really starts to focus it on systems.

Well, I'm just going to agree with what Marah and Meg had said and to add that, the one thing we have tried to do is find some categories that we can use in performing our questions, performing our research hypothesis and this using and Meg mentioned it several times that looking at relationships, boundaries, perspectives or paradigms and the dynamics. So, those four are very useful ones to focus on, so that when you look at your instrument that you have to see if you've covered those four, because those are the places where you'll find some leverage for changing the system and that's we often want, our evaluation is to help people figure out how to, how they can change the system.

**Session 5.10 - Integrating Systems Concepts with Mixed Research Methods to
Evaluate Systems Change in Child Welfare Initiatives**

And then, of course the one is this notion of outcomes and results and what the purpose of the system is and really getting some clarity around that. We actually came up with another little tool that we, it's a little new monique, that's a zipper, it's new way to kind of see if you're focusing on all the key elements of your programs you can find that out...

Speaker: Tell me what does zipper mean, Beverly?

Beverly Parsons: Someone even created this law enforce. Well, Z is for zooming in and out. So, like when you're looking at the system, you zoom in on some key parts and then you zoom out to see the bigger part, the I is for interconnections which is, we mentioned, P is perspectives and the second P is for -- patterns rather. And because that's where you want to look at patterns overtime and seeing those how that's working. And then E is for energy, so this is that dynamic and what's the energy in the system, where is it, what does it look like, how erratic is it, how smooth is it, and then lots of things around energy. And then R is for results to see your outcome. So, its nice well said, another little tool to kind of see if you could capture a lot of the important elements.

Margaret Hargreaves: One thing that, I've actually started this idea of looking at menus of mixed methods, so that it feels like, if your system changes focusing on a certain area, you have a different menu of mixed methods to look at, actually there's going to be a workshop that I'm doing with two other Mathematica researchers at the American Evaluation Association, which is looking at different menus of mixed methods to look at different kinds of evaluation.

So, if you're really looking at, if your intervention is trying to change the relationships among the players then you can put in your menu a social network analysis. If there are lots of learning collaborative right now that are using that theory of change thinking about increased collaboration and learning among key partners then put in collaboration scales and put in measures of change in collaboration, if you're trying to get people that have very different goals, agree or a zero win on a common mission, well then look at goal alignment and put that in your menu of mixed methods.

So, I do think that not every, you have to look carefully your theory of change, what are people doing to try to create change in a system and then used that to create your menu of mixed methods. Someone had one, yes.

Speaker: **[Indiscernible] [01:26:45]?**

Margaret Hargreaves: There's a excellent book, I cannot promote it any more than I do, it is by Patricia Rogers and Sue Funnell and its called Practical Program Theory, where they really do talk about different kinds of systems and system dynamics including complex systems. They have a whole chapter on theories of change and they pull up lots of different theories of change and they say, if you're using this set of theories then your logic model or your theory of change should have these things in it. I haven't seen a better text book on how to help people conceptualize and then evaluate a system theory of change than I've seen in their book.