

## Dr Keith Sawyer

## The difference between individual creativity and group creativity

## Speakers:

Nick Skillicorn – Innovation and Creativity Expert and Host of Innovation & Creativity Summit

Dr Keith Sawyer

Expert Interview transcript:

**Nick Skillicorn**: Hello everyone, welcome to another very very exciting expert interview in the innovation and creativity summit 201, very proud to have Dr. Keith Sawyer with us, Dr Sawyer is one of the academics of the fore front of creativity research, he is a professor at the university of North Carolina Chapel Hill and he has written many book in the subject including explaining creativity which is having multiple additions and his most recent work is zigzag which helps people understand techniques which to improve their creativity. Dr Sawyer it's wonderful having you

Keith Sawyer: Thank you so much, it's my pleasure to be here.

**Nick Skillicorn**: For people who aren't aware of your work or what you do and what you have researched, can you give them a brief background as to how you got interested into studying creativity

**Keith Sawyer**: I have been fascinated by creativity since young age, where I really focused on was Jazz on samples because I was a Jazz pianist in high school and became fascinated by this improvisational nature of performance when you are playing with the group and no one knows where it's going and no one knows what's going to come out of this improvisation, as an unpredictable flowing character and the creativity emerges from the members of the group interacting, that has really driven everything that I have done in my research career trying to understand those super creative groups when they take what sort of actions and interactions happening in those groups and then translating those findings to every day groups in businesses and in our personal lives to help maximize their creativity

**Nick Skillicorn**: And what sort of research do you do are you more on the neuron science side, more on the cognitive psychology side, what is your specialty

**Keith Sawyer**: I use qualitative methodology that I call interaction analysis where it allows you to dive very deeply moment by moment the interactional flow of a group, it involves transcribing the individual actions of the performers, the members of the group and identifying how they tie together how one flows from the previous one and how the final product of the group emerges from that flowing sequence of interaction.



**Nick Skillicorn**: Lovely, so if you want to actually start getting into some of the nitty-gritty, let's start at the most basic level for most people of one person being creative by themselves, what's your understanding about the things that make up an individual's ability to be creative?

**Keith Sawyer**: I also say the individual creativity with a process over time, it's never about a single solitary idea, a lot of my creativity colleagues especially about a few decades ago would focus on the big flash on insights and then associate that with creativity but all of our latest research suggest that it's really not about the idea, it's about small ideas yes you have to have small ideas every day and every week. But what makes someone creative is the ability to tie those ideas together over time in a creative process and successful creativity results from that process over time where many small ideas are embedded. So individual creativity it's about two things, it's about mastering that process and it's about consistently having these small ideas that drive the process forward

**Nick Skillicorn**: And then these conscious ideas, what people would refer to as convergent creativity where you are picking at lots of little things to eventually build a bigger one or is it what more people will refer as divergent, where you have lots of small ideas happening sub consciously and then turning them to this big idea.

**Keith Sawyer**: Yes I think it's a combination of both and the creative process is sometimes we use to call it the bubble or the balloon where it start out by having lots of idea that will be the divergent thinking phase, divergent meaning having a lot and then the balloon will get smaller and that will be the convergent creativity, I think that today's research suggest that it's much more iterative, it's like what some people call the day design thinking where the process is flowing but iterating in such a way you go through these idea generation and then idea focusing everyday and then maybe many times in a day. That's the nature of the process that it's not linear, it doesn't start with divergent thinking and then ends with converging there months later, it does that frequently and iteratively.

**Nick Skillicorn**: And then let's take it to the next level which you describe earlier, group creativity where you have got multiple people either building off each other's ideas or being in a state of flow as some people will call it, very much related o the Jazz, music performance and improvisation that you mentioned, what has your research told you about how these work

**Keith Sawyer**: The nature of improvisation interaction, I will say all group interaction is unpredictable and I think if it is emergent it's a bottom up sort of creativity where the members of the group in interaction generate something collectively where you might see the whole is greater than the sum of the parts and its completely the opposite of top down creativity and top down being let's say the leader of the group or the visionary CEO of the company trying to have the creative insights and then distribute them throughout the company or through members of the group . I would say never successfully generate innovation, it has to have this bottom up emerging character and you are more likely to get that when members of the group are interacting with each other in an improvisational flow where each members action has a variety of possible parts from the prior member action and then each person's action is open enough so that the next person has a wide range of responses, it's like constant openness and flexibility that results in that moment to moment detraction that results in the emergence of something new and great



**Nick Skillicorn**: So describe to us if you could the actual experiments you did on this subject to find out more, what was the aim of the experiments, how did you go about it and what did you find at the end of it

**Keith Sawyer**: I would say I don't use an experiment or methodology which involves identifying a control group and an experimental group and then measuring some numerical statistical comparism, I do a qualitative methodology which focuses on observation of naturally occurring interaction. So my belief is that when you go on into the world and you watch successful creative groups doing what they are doing in their natural setting, you are more likely to gain insights into what really goes on in successful groups and teams. So the observational methodology, I call it interactional analysis is very time consuming to analyze my study of improvisational theatre in Chicago, that was approximately a five year study because it involves such detail videotaping the interaction, transcribing the moment to moment encounters including things like the number of micro seconds between tens of dialogue or whether or not there is a half second of overlap between one person silent and the next person starting, those very fine second by second distinction tell us a lot about how groups get into a group flow state

**Nick Skillicorn**: What did you actually find by doing this analysis, could you see trends emerging or did you see differences between highly creative groups and groups that weren't just creative

**Keith Sawyer**; Absolutely, which is more likely to find creativity in groups is where each individual takes action step provide for openness and future possibilities so that the group collectively generates the creativity. what blocks group creativity is if any member of the group is too constraint or attempts to drive the group's flow, improvisational theater groups they sometimes call it writing scripts in your head which they are training to you not do, you are taking an action where you assume that the subsequent flow of the group will go on a certain part, you are writing a scripts and the flow of the interaction happened in some different way and it throws you out, you have to be responsive to the un predictability and then each of your actions instead of driving the scene which is another no no in improve theatre group. Instead of driving the scene they go in a particular direction, you take actions that allow for a wide range of possibilities to un fold after your turn and all of these characteristics of individuals shift creativity away from a person and shift creativity towards the genius of the group.

**Nick Skillicorn**: Its fascinating you are saying that because there is such of variety of experts in the field and researchers in the field and even within the summit, I have got certain people talk about all the things that you can do to enhance your individual creativity and you are telling us that what is actually more important is the group acting as a sort of collective, as you say molding some of its parts, super organism but what does the research that you have done actually tells us about how everyday people can be more creative in this groups who might not necessarily be on the stage doing jazz or improvisation

**Keith Sawyer**: Absolutely, there are types of situations or problems where it's more appropriate to have a single individual working on that problem and at certain settings you really need the group and the genius of the group to generate the solution to a problem. But individual creativity in a sense it has a similar improvisational flow because what I have identified from research and creativity, individual creativity is a process over time where each person when they are being creative consistently has small ideas and is able to link those ideas together over time in a process so

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that process can consistently leads to successful creativity, it's a fascinating and empowering view of creativity because it rejects this notion that you have to wait for a brilliant flash of insights before you can start being creative. That depends on people being lucky and then when don't have those insights they can get really frustrated. What you want, is you want a technique and a set of habit which consistently lead to creativity and you are able to trust that process even though its unpredictable and you don't know where its leading or what the outcome or when it will happen. You have to believe in that process and not wait for the brilliant flash of insight; in a way it has the iterative characteristics of a group improvisation where it has that singing property of unpredictability of small contribution to the process. when it's you alone, it's your own ideas and when it's a group it's the ideas of each member of the group but in both cases it's a process overtime where small ideas build together to generate something great

**Nick Skillicorn**: I understand that something that you talk about in your book zigzag, and it's this technique that people can actually use based on scientific evidence that you have talked about, without going into detail on every single technique that people can use, can you give us just a couple that if people can start incorporating into their everyday lives and work flow that you have see actually improve their ability to be creative

**Keith Sawyer**: One of the most important ways to enhance your creativity is to wait for good questions and good problems to emerge from the process. It tends to block creativity if you start your process with a very clear definition of your problem and then try to identify creative solution to the problem. The greatest and the most break through creativity comes when the problem emerges in a surprising way where you actually don't know how to ask a question yet. Creativity research we call it problem finding, so you start engaging in the process, you have some intuition about where you need t go and what you need to do but you are receptive to the way of formulating that problem, the type of question to ask emerging from the process. sometimes in silicon valley you might refer to that as a privet where you are trying to solve one problem and you then realize from your customers or from your users that they really have a different problem that need to be solved and that you are asking the wrong question. If you are not receptive to the questions emerging from the process, you are going to miss the bigger opportunities

**Nick Skillicorn**: Finally taking this beyond just beyond just the groups trying have these amazing ideas, what a lot of people feel frustrated by is that they are in that company or organization that says that creativity is important but it's actually unknowingly preventing them from being creative, what have you found of these hidden blockages to creativity that companies don't realize they are doing but they are actually really harming them.

**Keith Sawyer**: I started creativity research focusing on individuals and groups and then the more time I spent consulting and speaking to organizations doing workshops, the more time I did that, the more times I realized that so much of creativity is not really about the individual, companies can say they want more creativity, they might even send their employees to workshops to help them have better ideas, but if the organization isn't aligned with creative practices then it really doesn't matter how creative the people you hire are on some tasks for example. Organization have to get several characteristics in place, first of all it has to have incentives in place that incentivize creativity and in particular incentivize collaboration among members of the group, one way to block that is to give individual reward for their own creativity, if you do that it result in a kind of possessiveness and self



interest that blocks collaboration. The incentives really do have to be right, leadership is absolutely important, we depends on the leaders to establish the culture of the organization which for example should be a culture where great risks are expected and if people don't think they are going to occasionally feel that they don't get the same respect and the person who is safe and has consistent wings but they are very small some companies give that person more value and bigger incentives than the person that does something wild and crazy and it's never successful. I have seen innovative organization where if you take the safe bet, even if what you did generate revenue for the company you still don't get the same big incentives and you don't get value by the organization as much as someone who is consistently thinking big.

**Nick Skillicorn**: Can you give any examples of that because incentivization is one of the very tricky thing to talk about and its going to vary by companies and by country, but if you found maybe one example of maybe one really bad way to incentivize creativity and then maybe one way to really give way that works some of these consulting work

Keith Sawyer: A lot talk about companies that do it really well and if you improve that you can get some of the bad ways which maybe some of our viewers are in companies like that right now. My favorite example is WL Gore and Associates, they are based in the country side in Delaware, they are no way near silicon valley or California, I like to use this example because a lot executive I talk to, they think yes we are not in silicon valley those guys, is something in the water there but here we are in the Midwest and we just can't be that way. So I like using the example of a manufacturer that's in somewhat really un cool, outside of Delaware this company is incredibly creative, consistently innovating with new products and they have all of these characteristics in life, they have a culture that not only tolerate risk but expects it, they have incentives in place which are not focused on the individual but are distributed throughout the organization, they have a set of processes in place where creative ideas emerge from the bottom up as oppose to from the top down. To give an example, if you have a stage gate or a methodology where you are waiting for those bigger ideas and then some executives or some executive group takes these ideas that are going to move forward and then at every gate in the process, you have another group that is picking which one to move forward, that's top down because the selection at each stage are done from the top. It's the bottom up process that results to great creativity. WL Gore has mastered that process and it's almost like an in type process because it has this flow which is iterative and unpredictable, it's difficult to get it right and very few organizations can do it. It takes a long time if you are not there for the leaders to get the culture in place to get the nature of the process understood throughout the organization and then having the incentives and the leadership aligned with the creative process that is unpredictable, iterative and bottom up.

**Nick Skillicorn**: DR Sawyer, it's been wonderful speaking with you so far, we are coming up to the end of the session but what I like to ask all of the experts is based on your experience and your understanding of the science and the research, have you got one tip, one actionable insight that the viewers and the listeners can go out and try out either this afternoon or this week to improve their ability to be creative

**Keith Sawyer**: I think you should consciously introduce change into your routine including making an effort to meet the sort of people that you normally will not encounter. This is one of the most important finding in creativity research is that you are more likely to have interests in a creative



ideas if you have what we call distant combinations where combining very different conceptual material or ideas or experiences together in your mind, that combination ability is a basic human cognitive ability. Most of us have our minds filed with very closely related information, we are focused on a job, focused on a disciplinary expertise, so the key to this combination, you really have to make a conscious effort, go outside your everyday routine, make a point of noticing things throughout the day you might not always notice. I have got several techniques that are focused on that in my book zig zag and one of them is to make an effort to meet the sort of people that you would not meet in your day to day work place. You are going for a broad range of materials, broad range of people and perspectives and concepts and ideas and that I think is the first step to greater creativity

**Nick Skillicorn**: Perfect, I do recommend everyone have a look at the book because it is just so much insight as to actionable things that you can try out. For everyone who wants to find out more about you and the work that you do, where should they go to find out more?

**Keith Sawyer:** Take a look at my website that's Keithsawyer.com where you are going to find information about my books and my research and various other activities have been performing in this wonderful career of studying creativity

**Nick Skillicorn**: Perfect, it's been absolutely wonderful having you and I look forward to speaking again with you soon.

Keith Sawyer: Oh great thank you very much.