Making Learning Engaging Through Interactive Games

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Okay, welcome Jacey. It's a pleasure to have you. Nice to connect with you, a person who's always looking forward to interactive and engaging training and teaching. So please do tell us about the history of the work that you've been doing in terms of making education interactive and engaging. Hello, everyone.

I've been working on this for I think over five years, whereby we use a playful approach, mainly focusing on game design as an intervention in teaching and learning in education, whether it's in schools, primary schools level, secondary schools level, higher educations. And for the last four years, we have expanded to using the same sort of methodology, the playful methodology. Now we have incorporated frugal approach to participants, to wider audience in communities in general. Yeah.

Nice. So when you started, what triggered usage of this approach and what are the results that you saw once you started this approach in schools and colleges? We found very interesting sort of output to begin with. Something that we could hypothesize whereby we believe that games is an approach that speaks universally to different races, different ages. And that when we apply the different game approach into our different applications, say example in training or educating on climate change and recycling, for example, plastics, with a group of children, we notice it also trigger a different sort skill sets and capability sets and also empathy that has been ignited. Yeah, things that is very hard to train, like, for example, empathy.

When going through the activities, the playful activities, we notice and we actually asked kids to give feedback. So that's where we noticed from our observation that kids actually built the empathy and the feedback that they gave when we asked them how they felt with an emotion that only they themselves can describe from the activity. So that became a strong outcome and impact itself. Yeah. Okay, that's very nice.

So you feel that you're able to get the children more connected with the cause that you

are trying to explain or probably socialize with them. The empathy element is coming out strong, which is probably, was it lacking in the traditional methods of teaching, maybe through a lecture or a PowerPoint? What makes this dimension happen in a game? The connect and the interactivity better, contrasting it with the traditional forms. I think the power of engagement, as well as another term, it's the playful approach that ignites the way one thinks. The subconsciousness of thinking is being, How would I say it? It's where the button is being pressed when they go through the activities. It's exploration as well, that we don't judge them when they go through the activities again.

No judging happens, no examination happens. They are free to explore, they are free to experiment. And that sort of curiosity is being ignited in the midst of the complex thinking and that somehow it intertwined the way one think and that allow we believe that allow a tower engagement. We call this flow. So like a lot of game designs or games that you get actually manage to ignite that flow thinking.

And having this being implemented in our activities or teaching learning or any awareness, we notice the same sort of flow and motivations is also being ignited. Yeah, in the individuals. Okay, so you mentioned a couple of very important points. One is you said play offers, game environment offers a non-judgmental space. The students are not under any kind of pressure or assessments.

It gives them a sense of freedom. The non-judgmental space allows them to be themselves. We all humans would like to be ourselves. And sometimes if in a very formal atmosphere, we are not being ourselves and secondly the assessment aspect always it's like a judgment on my performance where do I stand in the class how many marks am I going to get so in a game environment all these go away. It's a a space where you can make mistakes and fail, and it's non-judgmental.

So these are very important aspects that a game or a play-based environment provides, which actually allows the participants to thrive. The third aspect that you mentioned is about the flow or the immersiveness. Flow is the state where humans are the maximum productive. Once you get immersed in the process, that's when your maximum attention is, focus is without pressure. So you are able to be at your best.

Have I summarized right? Oh, perfectly. Okay, and you also mentioned about the curiosity aspect. I mean, it allows space, it creates an environment where students can imagine. You don't have to stick to formal boundaries or standard answers. You can, if you can design a game where you can allow the child to express their ideas in and around the theme, it also triggers that curiosity and imagination.

So that's another dimension, if I understand right. Correct. And maybe perhaps I want to add on the curiosity is getting them or having our content, relating it to real environment or real life, ensuring that whatever we want them to learn makes sense. So linking it to perhaps, why are they studying this? So linking it to the real world or situations, and then they can see that making sense of it. And this making sense will ignite another level of curiosity as to why or what can I do more? Yeah.

 Okay, very interesting. So it's the textbook-ish form of learning sometimes confines us. Although textbooks do provide occasionally real world examples, you feel that in a playful environment, we are able to give better examples and correlation. Right, so maybe just can you if you can quote one example of where the play or game based learning enables this if you can recollect from any of your experiences that will be helpful for the audience. Okay maybe i give you one examples that we have done that is bridges.

 Okay. More on engineering. Okay. So , It's a hands-on activities of course there's a bit of a hybrid but we again we were focusing more on frugal whereby we use papers recycled papers and then the trick the first trick is actually to roll into like a straw like yeah so that's the first fundamental first before we built a bridge. And then we teach them the fundamentals of bridges, the formation of bridges. And then you have the truss, you know, the concept of triangle, which is very important, and how it actually makes the bridge stronger.

 So basic things like this, then we get them to start building. But first, before they start building, they need to learn to visualize. Importantly is to actually draw it out, to do the measurements. So you see the mix of mathematics, the mix of art, the mix of explaining in team, conversing within the team, collaborating, and then delegating the different tasks because we gave them a very limited time. So this allowed the different skill sets that has been built along the way of the process.

 And then the building of the bridge. So there are various shapes of bridges that was built, but that did not stop the activity. So the next step was to actually test the bridge that they have built by adding weights. So we turn it into a competition where we ensure we've set a condition. This is the width of the bridge.

 Okay, there is a river here. And you have to make sure that your bridge is long enough to accommodate the two ends to make sure that people can cross the bridge so we put weight and then when it fail at a certain weight then we ask questions you know like why did it fail what can be improved so the reflection comes in and getting them to link to how bridge should be and why it failed and what can be done next. And if you notice,

there is a reflection, a critical thinking that is going on here and problem solving from a co-created solutions and solving again from a co-created or a problem that they have found before actually building the exact sort of bridge. So the whole process is getting them to see how things are done, and we get them to articulate the whole story. So we cover the different aspects of what should be taught in school, as well as how do we relate it to real life, of what bridges is, and also the concept of bridge in engineering.

I'm not a civil engineer, But I've got a team who is a civil engineer, which then explain the main terms that a bridge has. Yeah. Okay. Nice. So, you're able to get the civil engineering concepts delivered in a playful manner, in a mini activity based fashion, which is far better.

Probably, I'm assuming that the participation and the curiosity and interest in experimentation will be lot higher rather than if the class was taught through lectures, right? I mean, do you see that happening? Definitely and then after the whole activity we spoke to a few teachers and the teachers actually had different sort of ways they want to bring it back to the classroom and they have different mechanism of doing things instead of using papers, they were suggesting that they're going to use this approach, that approach, which is a way to see that the thinking has changed to better and that they don't stop from the activity, but there is a motivation to move forward. Yeah, that's great. That's great. I mean, obviously, all these things have to be experimented, but you've kind of sown the idea that this is another way to teach and involving the students and the participation, engagement, curiosity, all those aspects that a typical teacher looks for in a teaching learning process is really enhanced.

Great. And just for the sake of educators who want to get started off with this, but probably are looking for ideas, what would your tips be to get started with this approach? I mean, you can share based on your own learnings or what you would see as an experienced practitioner now, having practiced over last five years, what would your advice, one or two pieces of advice to be for them, whoever wants to get started? I think one way is don't work alone. I think ideas and innovation, I mean, you get innovations and great ideas by working together. I think the first step is find a team of a different field. If you're a chemistry teacher, don't find another chemistry teacher. Try to have a mix like chemistry and maybe you get language or art and then see how you can co-create activities together.

There is no right and wrong. This is as a game designer, as one would think, if you're designing content, you're designing activity. We try not to set the boundaries, but let it be effortless. Let it be free. And even designing, there will not be any judgmental going in, you know, like, oh, this is not right.

We try not to have this. So one approach that what we usually do is to set a time limit to ourselves when we decide to do this. Because too much thinking, we become, the humans comes in, you know, the human sort of behaviors like, oh, okay, I think logic comes in. Settings of formats, everything all comes in. But when we talk about ideas, we want the first thing that comes in. Even though they are impossible or it sounds silly, there is no silly ideas that are silly.

A lot of silly ideas have turned into innovations, like what Elon Musk is doing. So I think start off with that. And once you do it a few times and then you need to test, it fails, activities fails, that's fine. But I don't believe in a failure in activities 100% because a lot of people have different ways of thinking, different ways of learning. And surely my philosophy is that we accommodate as much as we can.

You know, we believe, of course, game is fun. If we incorporate games into it, keep the game simple, right? If you think snack and ladder is a common language, you add in the content, then let it be. You don't need to change too much of the snack ladder and mix it with Monopoly or other games that will add in different knowledge. If the knowledge that you want to focus on is just one topic. So I think it does, from what we see, we can't please everyone, but we can also ensure that there is takeaway from our participants, regardless of what age.

And there is also takeaway for self as a designer, a learning. So many times after we've done it immediately, we will come back, and then we reflect what was the thing that, uh, we didn't do right. What was the thing that we have observed or that surprises us? And what was that method that we have carried up that actually surprises us? Because sometimes we do surprise ourselves, many times, by doing this. So I think it's good sort of reflection and then write it down because all these methodologies are, may not be new. But in some way it is new because it's not written or is very much of a self-exploring or self-exploration sort of methodology that none of us actually write it down.

So I think it's nice to have it written and then adapt it what works because again, we come from different culture and Different approach may work for different culture, may not work. Or if we're lucky, it may work to all cultures. Yeah, so my advice is just give it a try. Don't be scared to fail. Like Albert, well, a lot of all those great innovators, they didn't fail once to be successful.

I'm sure Picasso has a lot more paintings than we have seen. A lot of failed paintings. Newton has a lot of failed inventions as well. Through failures, we learn. If we don't learn from it, then I think we will never progress.

But if we learn from it, the methodology that we take will definitely be a lot better. Great, great points. Thank you so much. So just to summarize, you said ideas come in groups. So pair with someone, preferably not from the same background so that our thinking patterns are not alike.

That brings in creativity and innovation. So the mix happens to generate innovative ideas. Like the example you gave, chemistry with the language teacher. Then do a lot of experiments. Don't be worried about failures.

Refine and learn from them. And keep it simple. Don't have to create complicated game ideas.

Do simple trials. Try them out. Experiment. Improvise. And there's nothing wrong in failing. And it's the only way to progress. If I have summarized you right.

Have I left out anything? No. That was perfect. Okay, great. So thank you. Thank you very much for sharing your experiences in this methodology and seeing successes. Wishing you all the very best in continued progress in this direction.

Thank you so much for being with us. Thank you so much to you too, Kartic. Thank you.