An Interview with Curtis Kelly

Matthew Turner

Toyo University

Matthew Turner: *As an officer of the Mind, Brain and Education (BRAIN) SIG, could you tell us about your SIG's focuses and scope?*

Curtis Kelly: The SIG is only a few years old. Personally, I've always been interested in brain sciences and neuroscience. Back in 1997, I did my first presentation on these subjects at JALT, when nobody else was really talking about neuroscience. Language and learning however are both very important processes of the brain, so I wondered why this wasn't getting any attention. I also wondered why linguistics was dominating our whole field of language education, when it should be more about the brain and learning, and the learner. So that was my motivation, and this drove some of us, after putting on some conferences as a way to talk about brain studies and language teaching, to create the BRAIN SIG, and at the time, it almost didn't get passed because JALT already had the Critical Thinking SIG.

You probably have a diverse range of members in your SIG. What are people interested in, and what are the broad themes that people look at?

Curtis: That's a good question. I think people come to the SIG with a feeling that they are interested in neuroscience or brain-related things, but don't really know much about it. Then once they come in, they come to our presentations and they get more interested in things. A good example of this is Tom Gorham; he came to a presentation and got more and more interested in brain-related things, before doing his own presentation. He then entered Harvard's Mind, Brain and Education Department, got his master's degree there, and now he's getting a doctorate at Kyoto University. So, people catch the spark and just keep on going.

You also have a journal as part of your SIG, could you tell us about that?

Yes, we have a journal, but if you think about it, SIGs all have publications, newsletters and journals. When you think about it, journals are a 19th century form of education. They worked in the 20th century too, but how many people read journal articles that aren't written by famous people? So, we've started something else. We've started what we call 'Think Tanks', which is a magazine, because our purpose is to get people interested in reading about brain science in a friendly way. We're using what I like to call 21st century learning methods. How do you learn things? Somebody will probably send you a video on Facebook, and you'll watch that video

and say, "oh, that's really interesting, I want to know more." You talk about it with some colleagues, and somebody might say, "hey, read this paper, it's related to that," so that's what we're doing. We're starting out with a recommended video or two, something very short, something by somebody famous, because we're not going to say that we're going to give you the newest research on this topic, we'll let somebody else do that. Then we go on with discussions about how these topics relate to our lives, topics like neurodiversity, working memory, confirmation bias, and mindfulness. We have 120 members in our SIG and 700 subscribers to our magazine, most of whom are outside of Japan.

You gave the example of Tom Gorham, who is now doing his doctorate degree. Could you tell us about some of other influences that your SIG has had on its members or perhaps learners?

I think it is about being able to make people aware that brain sciences are important and offering a lot of information. It is not going to change education, as much as what you know intuitively, because doing interesting things is really important. Linguistics doesn't tell us that, it just talks about the language. But now in neuroscience, we know that no emotion, means no learning. For example, having students stand up and move their bodies every 20 minutes is critically important for cognitive function. So, for example, don't pass out quiz papers, have students come to the front and pick them up. Little things like that, not a huge impact on teaching, but they're telling you that what you've been doing, what you've known intuitively, is right. So, I think that's the big influence. Our mission relates to the fact that nobody is teaching us about neuroscience, and even most of the master's and teacher training programs have very little neuroscience, so we're going to learn ourselves. You don't have to be an expert to learn much and then teach each other, we're not looking for a really high level of academic expertise, just people who are interested and want to know more and pursue these topics.

Why do you think it is that there isn't much of this in teacher training programs?

I think it's just awareness. I think academic graduate teacher training departments consist largely of academics in a certain area, and they just know their field. It's like a 'gopher hole' situation. Just like 30 years ago, the only thing about teaching English was called Applied Linguistics, and even Applied Linguistics was kind of looked down on by the Linguistics departments. But now it's become English education, TESOL has become its own huge field, but it just took a long time for the 'white towers' to accept that as an academic area.

In some of your publications and output, I've seen terms such as "brain-friendly" and "brain-based learning" mentioned. What do these terms actually mean? I have an idea that they are activities or ways of teaching that are in tune with how the brain functions.

That's right, and, for example, learning vocabulary. Unless it's in context, it's really hard to learn. You can't just memorize a list of words that easily. Another one is stories. Knowing the brain just really absorbs stories, and music. If I was to ask you to memorize a 26-digit number, it would take you like three days to do so, and you'd probably forget it after a further day. But you can learn the alphabet in about one hour because those random sounds, those letters, are all attached to a song and your brain just absorbs it in that way, and the same thing is true of stories. We've learned that information given in stories is learned twice as quickly in some studies and kept twice as long. So, finding out these brain-friendly ways of learning that go beyond just lists and the lecture-type approaches that are the tradition in our field.

With regard to being brain-friendly, I would imagine the way to test that is probably in a laboratory. How can we make these small changes to our classes without going to the scientific side of things? And, how can we quickly assess whether or not things are good for the brain?

If you don't have the time to go to the sciences, then that's the purpose of our magazine. For example, teachers taking things like dyslexia, that they know a little bit about and sharing advice. One of my students wrote about his Asperger's, and wrote about what students with Asperger's need in order to survive in the language classroom. So, we're just trying to connect the hard science in an easy way to our everyday lives in the classrooms.

Turning our attentions to the 2019 JALT national conference theme of Learner Agency, Teacher Efficacy. Let's focus on the 'Teacher Efficacy' point, and how this point relates to the concerns of your SIG. For example, the idea of neuromyths is something that perpetuates our field, I think. These neuromyths that go around, for example the left and right sides of the brain. So firstly, how would you define a neuromyth, and what are some examples of neuromyths?

The term neuromyth seems a little bit condescending, it's like saying "I know brain science and you don't, so that's a myth." A lot of the things that we now call neuromyths were actually things that were really a state-of-the-art science at a certain time. One is the learning styles neuromyth that says that some learners are kinesthetic, some learners are auditory, and some learners are visual, and that you should teach everything to them in the

mode that they fit. Of course, there are still learning styles, but teaching somebody how to type with a video or a lecture is not going to work, they have to get their fingers out and do it. So, it's more like the content determines how it should be taught. Of course, the more modalities you can use, the better. Mirror neurons are turning into a neuromyth, and there's still debate on it. We thought that mirror neurons that help you get empathy, don't work that way. We just think mirror neurons are the way that neurons fire to imitate whatever action they're seeing in order to get the meaning from it. Dyslexia, Asperger's, ADHD are disorders. Now we think they might be human version 2.0, because they also offer strengths to people. It is not just simply saying "you have it or you don't," it's a spectrum. All of us exist on the spectrum of Asperger's, ADHD, or something like that to some degree. I've kind of come to realize, I'm more of the ADD type, without the hyper. Another neuromyth is that your brain is in your head, but it's actually in your whole body. You can't separate the brain in a vault, it doesn't work like that. There are actually more neurons outside of your brain than inside, outside of your cranium than in. Your stomach, for example, the microbiome in your stomach influences your mood. You can actually eat poop from something with a different microbiome and it'll change your mood, there's been studies that have shown that recently. So, there's so many things that are neuromyths that are just really interesting. Male brains and female brains, too. The male-female brain difference is, in terms of structure, virtually none. In just a few places, there's a little bit of difference.

Something you touched on was learning styles, or VAK (Visual, Auditory, Kinesthetic).

I read somewhere that there was a group of scientists that set a reward, saying that if somebody can claim that this exists, they'll give you a reward. The amount is going up every year because nobody can at the moment. So, what's your take on learning styles?

First of all, just telling somebody they have one particular learning style doesn't make sense because we're using all of our brain to do everything all the time. However, reading newspaper articles with titles like "Learning Styles Is A Myth," well that's not true either. So, the pendulum has gone a little bit too far this way. It is true that we do have preferred ways of learning, and if we use those ways of learning long enough, we're going to be better at taking in information through them. It's just it's not this solid thing that exists in people.

I see. Changing topic slightly, something that's becoming more prevalent in ELT in recent years is a growing awareness of learners with special educational needs and specific

learning differences. How can we go about making sure our classrooms are inclusive of all kinds of learners?

We have two issues of our magazine relating to this topic coming out in six months. And I think that, for me, the biggest change in my thinking about disorders happened in the last six months because of Alex Burke's presentations, who's dyslexic and wrote about dyslexia for us and her ideas about that kind of particular neural organization. Yoko Takano is another example, she has MS. I've just become fascinated reading from the people. Again, I said one of my students with Asperger's wrote us a letter and some people said, "that's really self-centered." In response I said, "yes, because that's what Asperger's is." Yoko Sato, a presenter who was here yesterday, helped one student find her way through the system and adapt to it. There are so many good stories. There's so much that we can do. It's just a matter of caring, recognizing and not seeing something as a disorder, but as a difference.

So, what's the best way for teachers to ready themselves to work with these kinds of learners? In the past I've taught learners that had hearing impairments and I've had no training in that throughout my years.

First, I would say educate yourself, read about these two issues, for example. Second, I would say learn about the disorders that are not so well-known, like dyspraxia, the inability to write. Also, dyscalculia. Five percent of the population has an inability to compute numbers in their heads very well. Things like dyspraxia and dyslexia are somehow connected, and you can see it when these students write with these super huge letters that tend to bounce around the page and things like that. If you're in a university and your university test is on this yellowish paper, it's because it's easier for dyslexic learners to read, we changed to having colored paper for the sake of students with dyslexia. People with hearing disorders, there's ways that you can identify it. They may not want to say, but you can sometimes identify hearing disorders or listening aphasia. There are people that have listening dyslexia too, where sounds get mixed up. There's a lot of disorders or differences and some are not that well known. So, it's good to educate yourself on many and talk to your university's student counseling center who have probably dealt with these kinds of students many times.

Just one last question about your SIG. What are the future directions of your SIG and what are you hoping to look at in the near future?

We'd like 10,000 subscribers to our Think Tanks. My colleague Marc Helgesen is currently in Indonesia passing around a sign-up list to get more people interested. Again, we're not doing this necessarily to educate

people, we're doing this to make people aware and become interested. That's another reason why we recruit a lot of people to write for us and show a little bit of interest, and say "come on, why don't you write for us?" They learn more, and they get into things more and more. So, it's also like a vehicle, not to give science like journals do, but to get people involved and talking, committing and contributing. So, 10,000 subscribers, and more people writing for us. If you don't feel like you have much experience in that background, write for us anyway.

Thank you very much, Curtis, it's been interesting talking to you so thank you very much.

Bios

Matthew W. Turner is an English language lecturer in the International Tourism Management Faculty at Toyo University. His professional interests include teacher education, reflective practice, podcasting, continuing professional development, accessible tourism, and support for learners with special educational needs. Matthew is the coordinator of JALT's Teacher Development SIG, and cofounder of the TEFLology Podcast.

Educator, author, and presenter, **Curtis Kelly** (EdD), founded the Mind, Brain, and Education SIG (with help from many others) and is the producer of the MindBrainEd Think Tanks, a magazine that connects brain sciences to language teaching. His passion for neuroscience comes from his life mission, "to reduce the suffering of the classroom." He is especially interested in predictive processing, the role of emotion in learning, embodied simulation, and "network" thinking. He also writes materials for "3L" students (Low ability, Low confidence, and Low motivation). He is a professor at Kansai University and was recently a Teaching Fellow in Harvard's The Neuroscience of Learning.

The Teacher Development SIG online:

We keep an active online presence through Facebook and Twitter, our YouTube channel, and our own website. On Facebook and Twitter, we share information on upcoming SIG events, reports of past workshops and sessions, JALT activities, language teaching conferences throughout Asia, special member requests, and more... We also use these sites to interface directly with our members and those interested in our group. Our YouTube channel hosts recordings of some featured speakers' presentations, with plans to add more content soon. On our website, visitors can learn more about our various SIG activities.

Website – https://td.jalt.org

Facebook – https://www.facebook.com/TeacherDevelopmentSIG/

YouTube – https://www.youtube.com (Teacher Development SIG)