



# BRAIN / CT SIGs One-day Event

SEPTEMBER, 24  
2017

Handbook



Welcome and thank you for joining us today for a day of sharing and learning about the brain and thinking skills. Our mission today is to give you, the attendee, a perspective on how Critical Thinking and Neuro-ELT can overlap and impact your classroom.

Everything we do, be it learning, playing, or even sleeping requires our brain. The more we can get in touch with our brains, and how they work, the better learners we can become. By training the brain with higher-order thinking skills, we can give students the opportunity to expand their social, cultural, and professional horizons. Neuro-EFL gives us a way to look into the brain and see what is working or not and the data we need to improve our methods to be better able to engage and influence our students.

We hope you find today both interesting and useful.

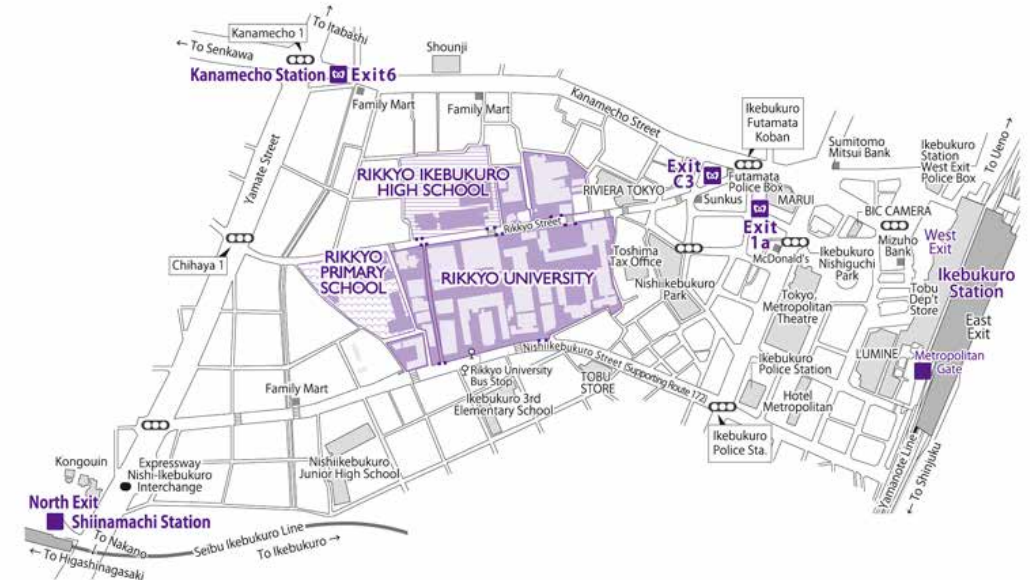
Sincerely,  
James Dunn - Coordinator: JALT CT SIG  
& Curtis Kelly - Coordinator: JALT BRAIN SIG

A special thanks goes out to Amanda Gillis-Furutaka of the BRAIN SIG and Christopher Nicklin of the JALT Tokyo Chapter for all of their hard work in making this event happen. We would not be here today without your help!

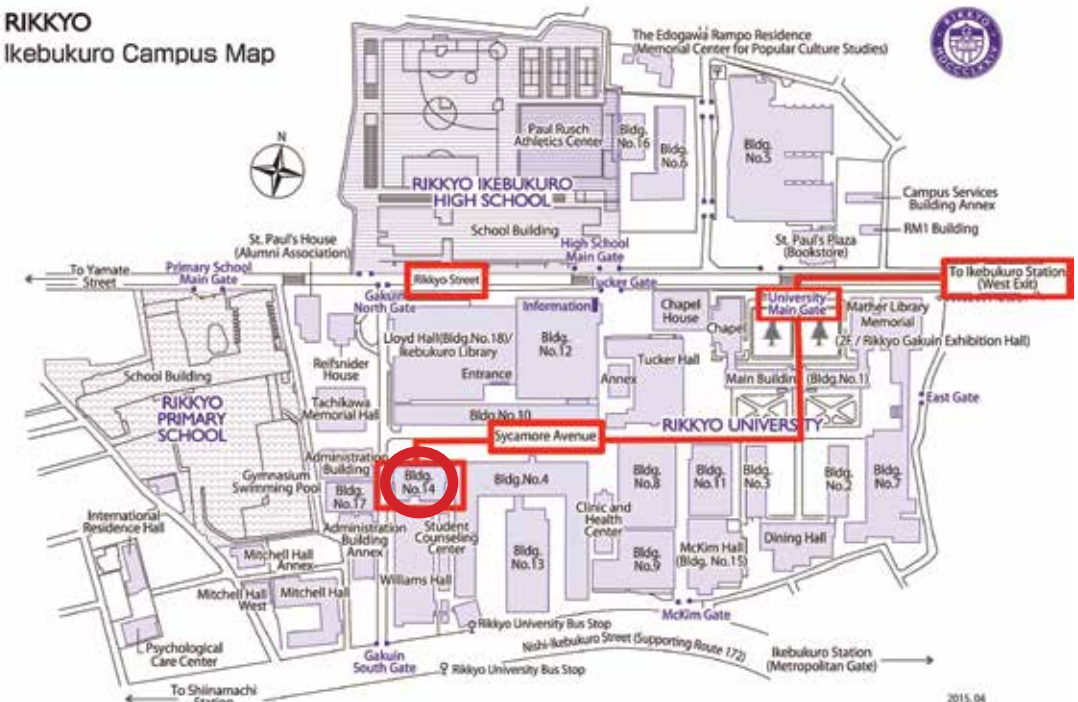
Also thanks to the JALT Tokyo Chapter for hosting us today and helping us find this great venue for us to share our ideas.

## A Guide to the Venue

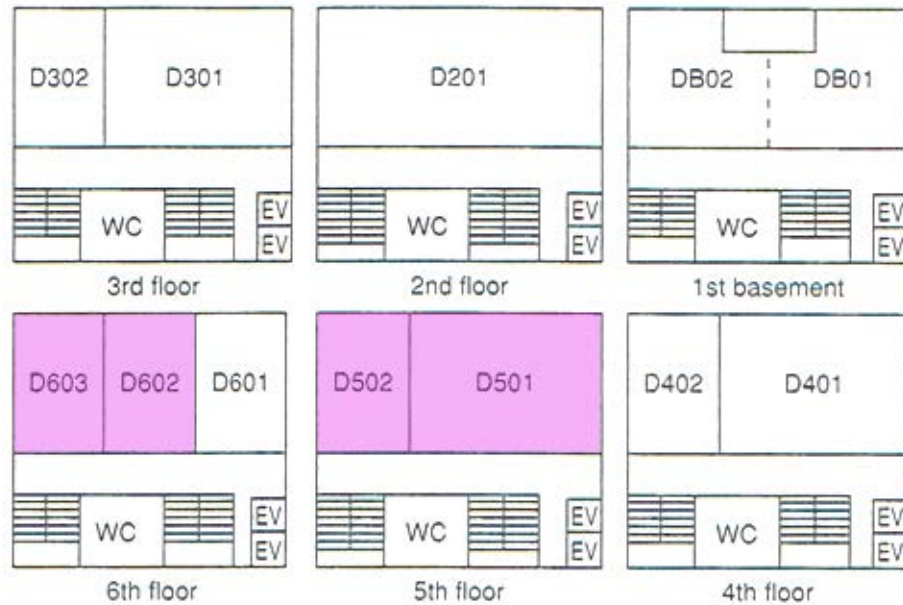
### Access to Ikebukuro Campus



### RIKKYO Ikebukuro Campus Map



## Building No.14



Reception can be found on the 1st floor lobby area. Please make sure to check in there to sign in to the event.

The Introduction by the SIG Coordinators will be in D501 starting at 10am. The two featured presenters will also be giving their talks in D501 after lunch and at the end of the event.

Make sure to head to the D501 after Dr. Matsumoto's presentation to join the Teach-In about BRAIN and Critical Thinking!



## Today's Schedule

### Block 1: 10:00 - 11:00

**10:00 to 10:40 (D501)**

Introduction by Curtis Kelly (BRAIN SIG) and James Dunn (CT SIG)

### Block 1: 11:00 - 12:00

A

**11:00 to 11:25 (D502) (25 minutes)**

Mike Kelland - JALT Mind, Brain, and Education SIG

**11:30 to 11:55 (D502) (25 minutes)**

Bradely Irwin - JALT Critical Thinking SIG

B

**11:00 to 11:55 (D602) (55 minutes)**

Caroline Handley - JALT Mind, Brain, and Education SIG

**11:00 to 11:55 (D603) (55 minutes)**

Wayne Devitte - JALT Critical Thinking SIG

### Block 2: 12:00 - 13:00

LUNCH

**Block 3: 13:00 - 14:00 (D501)**

**FEATURED PRESENTATION**

**Dr. Kahoko Matsumoto - Tokai University**

### Block 4 14:00 - 15:00

**TEACH IN! (D501)** - Join us to learn more about BRAIN and CT! Each group has 3 topics selected to help you learn more about their subject and how it can be implemented in the classroom.

**Block 5: 15:00 - 16:00**

A

**15:00 to 15:25 (D502) (25 minutes)**

Ai Murphy - JALT Mind, Brain, and Education SIG

**15:30 to 15:55 (D502) (25 minutes)**

Nicholas Bufton - JALT Critical Thinking SIG

B

**15:00 to 15:55 (D602) (55 minutes)**

James Dunn - JALT Mind, Brain, and Education SIG  
& JALT Critical Thinking SIG

**15:00 to 15:55 (D603) (55 minutes)**

Hiroshi Nakagawa - JALT Critical Thinking SIG

**Block 6: 16:00 - 17:00 (D501)**

**FEATURED PRESENTATION**

**Dr. Joseph Shaules - Jutendo University**

**Block 7: 17:00 - 17:20**

Final Comments from the Organizers

**FEATURED PRESENTATION**

**(13:00 - 13:50 in room D501)**

**Dr. Kahoko Matsumoto**

**Tokai University**



**Creation of the Criteria and Instructional Models of Intercultural Competence Tailored to Japanese Students**

This presentation summarizes an attempt to create the criteria and instructional models of intercultural competence for Japanese students, which is based on the results of 2 grant-in-aid projects, one finished and another ongoing. The first project used the framework called FREPA (A Framework of Reference for Pluralistic Approaches to Language and Cultures) published by European Center for Modern Languages and some North American critical thinking studies to tease out and validate the components of intercultural competence most necessary to produce future global citizens in Japan. It ended with the production of some instructional models, mainly those to be applied to university foreign language courses. The second, ongoing project broadens the scope to include all educational levels, and aims at creating an instructional model which incorporates more self-initiated awareness raising activities with scaffolding, by the use of a self-reflective tool produced by Council of Europe called Autobiography of Intercultural Encounters (AIE). In the second project, the presenter and her research team seek the ways to naturally tap students' intercultural awareness and sensitize them toward intercultural communication, which posed some challenges. So, the difficulties they have faced in dealing with elementary and high students will also be shared.

- Kahoko Matsumoto, Ph.D. is Professor of English at International Education Center of Tokai University. She has been teaching English and applied linguistic subjects over 20 years in Japan. Her original specializations were teaching writing and assessment, but most recently, she has been involved in various projects related to intercultural competence and critical thinking.

## FEATURED PRESENTATION

(16:00 - 16:50 in room D501)

**Dr. Joseph Shaules**  
**Jutendo University**



### **A Hard Science and Soft Heart Approach to Foreign Language Pedagogy**

This presentation will introduce the notion of deep learning. It will argue that approaching language learning primarily in terms of knowledge acquisition and/or skill practice overemphasizes the analytic processes of conscious cognition. A deep learning approach, on the other hand, emphasizes intuitive understanding and a holistic view of the learner. It seeks a synergy between a “hard science” understanding of unconscious cognitive processes, and the “soft heart” focus on the emotional wellbeing and growth potential of learners. We will learn about conscious and unconscious learning processes, embodied cognition, and four levels of deep learning. This presentation will encourage educators to consider not simply how much students are learning, but also how deep their learning is. We will share ideas for how to encourage deep learning in the classroom.

- Joseph Shaules (PhD) is well-known for his expertise in both language education and intercultural communication. He has lived and worked internationally (Mexico, Japan, and France) for more than 25 years, and is the author of multiple books and textbooks, including *Identity* (Oxford), *Impact Issues* (Pearson), *Deep Culture* (Multilingual Matters) and *The Intercultural Mind* (Intercultural Press). He is a professor at Juntendo University's Faculty of International Liberal Arts, where he oversees their English language program. He also directs the Japan Intercultural Institute, which does research and teacher development in language and intercultural education. For many years, he appeared on NHK Educational Television, most recently on *Nyuzu de Eikawa*. His current research interests include the application of findings in brain science research to intercultural and language education.

## SHORT PRESENTATION

(Block 1A - 11:00 to 11:25 - Room D502)

**Mike Kelland - Tokai University**

### **The Effects of Working Memory Capacity on Oral Fluency**

The study addressed the question of how differences in the working memory capacity (WMC) of individuals affects ability to recall vocabulary items and aid in oral fluency. Participants initially took an OSPAN test (an adapted version of Daneman's 1991 working memory speaking span test) with results used to create a high and low WM capacity experimental groups, followed by a vocabulary test, a treatment, and post-treatment testing. Tests were evaluated using acoustic analysis software as well as against a speaking test rubric. The presentation will outline the process and present the findings of the study.

- Michael has been employed in tertiary education in Japan for the past 10 years, and is currently junior associate professor at Tokai University. He received his MA in TESOL and Applied Linguistics from Portsmouth University and is currently engaged in working memory, critical thinking and cognitive load theory research projects.

(Block 1A - 11:30 to 11:55 - Room D502)

**Bradley Irwin - Nihon University College of International Relations**

### **Using Content Based Language Learning to Promote Critical Thinking.**

This show and tell presentation will introduce the practical steps taken in a first year university speaking and listening English class to introduce critical thinking as the focus of study. Using a Content Based Language Learning approach allowed the emphasis of the course to shift from a traditional teacher centered language course to one that promoted active student involvement. Students were encouraged to brainstorm topics, gather resources and information, critically assess their sources and finally present their ideas to the class. Feedback in the form of a survey was collected from students to explore their experiences with critical thinking and their perceptions of CT in language lessons.

- Bradley Irwin an assistant English professor at Nihon University College of International Relations in Mishima, Shizuoka. His research interests are identity in language learning, critical literacy and computer assisted language learning. In his free time he enjoys surfing and snowboarding.

**LONG PRESENTATION - Block 1B**  
**(BRAIN SIG - 11:00 to 11:55 - Room D602)**

**Caroline Handley - Asia University**

**Why understanding conceptual knowledge matters for  
teaching foreign languages**

In this presentation I will discuss the relationship between conceptual and linguistic knowledge and then how both types of knowledge can affect foreign or second language learning. I will briefly introduce a dynamic theory of word meaning, before considering how this view can be related to theories of conceptual knowledge based on conceptual spaces and embodied cognition. Finally, I will introduce some research on the interaction of language and thought, particularly with regards to second language users, and discuss the implication that there is a difference between language errors and conceptual-linguistic errors. The general conclusion is that meaning, not grammar, should always be at the heart of foreign language teaching and learning.

- Caroline Handley is an English lecturer at Asia University in Tokyo. She has a Masters in Applied Linguistics from the University of Birmingham in the UK. She is currently a PhD candidate at Swansea University, also in the UK, where she is researching the relation between conceptual and linguistic knowledge in lexical processing.

**(CT SIG - 11:00 to 11:55 - Room D603)**

**Wayne Devitte - Tokai University**

**What Are You Talking About? – Japanese EFL Learners  
Lacking Background Knowledge**

This presentation presents an alternative explanation for Japanese learners of English reticence to articulate their opinions to native and near native speakers of English. It presents findings of interviews with nine Japanese participants who reported on their interactions with their non-Japanese English-speaking friends. From the sociolinguistic behavior displayed by the Japanese learners of English, this presentation also presents a rationale for the need to assist them in developing critical thinking skills. Such skill development will help them not only learn English, but also will provide them with tools to be able to more successfully negotiate contact situations and make the most of their English language skill.

- Wayne Devitte is a junior associate professor at Tokai university. He specializes in intercultural interaction and the applications of critical thinking to developing intercultural competence. In his research he applies Language Management Theory to social interactions between participants in contact situations.

**SHORT PRESENTATION**  
**(Block 5a - 15:00 to 15:25 - Room D502)**

**Ai Murphy - Murphy School of Education**

**UDL: The ‘magic properties’ of level-appropriate teaching;  
students’ cognitive development**

Schools for young learners often progress students “automatically”, seemingly assuming that their students have managed to master all that had been taught previously. In contrast, research clearly tells us that learning variation among students is the NORM. We have a very real problem here! Let’s review the results of a privately conducted student survey regarding students thoughts on automated progression in schools, and explore possible solutions based on Universal Design for Learning, and Differentiated Instruction.

- Ai Murphy is a Co-founder of the FAB conferences and the international NeuroELT movement, and school owner-teacher or children ranging from one to fifteen years of age at the Murphy School of Education. Ai also counsels parents regarding bilingual education in Japan and child-rearing.

**(Block 5a - 15:30 to 15:55 - Room D502)**

**Nicholas Bufton - Takasaki City University of Economics**

**Developing Critical Thinking Activities Suitable for Both  
English Conversation and Reading Classes**

This presentation demonstrates tried and tested task-based activities that promote critical thinking for learners between CERF A2 and B1 levels. The difficulty of introducing critical thinking in the second-language-learning classroom is well known. Therefore, increasing to the cognitive load associated with language learning by introducing higher-order skills that are either too demanding or abstract is simply a recipe for disaster. The information-gap task cycles being presented are designed to raise the learners’ awareness of thinking critically by requiring them to negotiate and confirm meaning in an engaging and practical way. These low load activities can be used to introduce concepts such as ambiguity, vagueness and assumption; source checking; and a number of easily detectable fallacies.

- Nicholas Bufton is Professor of Applied Linguistics at Takasaki City University of Economics. He has coauthored a number of high-school textbooks, and has been teaching critical thinking as a general education subject since 2006.

**LONG PRESENTATION - Block 5B**  
**(BRAIN & CT SIG - 15:00 to 15:55 - Room D602)**

**James Dunn - Tokai University**

**An Intersection of CT and BRAIN in Language Testing**

When dealing with the minds of our students, critical thinking and the brain are very different, yet connected, aspects of language learning. This presentation will present a study that is currently underway measuring the impact of higher-order thinking skills (HOTS) training for language testing on student scores in the reading and listening sections of the TOEIC. This study also seeks to explain the increase in student scores through measuring brain activity with portable electroencephalogram (EEG) machines to gauge student emotional states during testing. The results, while still in an early phase, are very promising with student scores increasing and major changes happening in the brain activity as measured with the EEG machines. Participants will leave with classroom activities to both promote HOTS and better test scores for their students.

- James Dunn's research interests are in Critical Thinking skills and their impact on brain functionality. Currently he is measuring higher-order thinking skills training emotional response via portable electroencephalograph machines during English activities. He can be reached at [jdunn-tokai@outlook.jp](mailto:jdunn-tokai@outlook.jp) for inquiries.

**(CT SIG - 15:00 to 15:55 - Room D603)**

**Hiroshi Nakagawa - Tokai University**

**What Are You Talking About? – Japanese EFL Learners  
Lacking Background Knowledge**

This sample Meaning-order Approach to Pedagogical Grammar (MAP Grammar) lesson is designed to aid communicative skills and the development of critical thinking ability. The tasks introduced will have learners remain focused on communicative function and meaning while providing guidance on form. Students should be able to monitor and refine English production for future use. The use of visual aids also prevents over reliance on L1 and provides chances to find expression that would best fit with the context from their mental lexicon. This collection of tasks is designed to develop critical thinking skills through meaningful interaction with peers.

- Hiroshi Nakagawa is an English instructor at Tokai University. He has completed a Doctorate of Education program specializing ESL methodology and second language acquisition from Northcentral University in Prescott Valley, AZ. His research involves receptiveness of sheltered instruction observation protocol (SIOP) model within a Japanese university context.

**TEACH-INS**

---

**Presented by the BRAIN SIG and CT SIG**  
**14:00 to 15:00 - Room D601**

- **Six BRAIN SIG and CT SIG speakers will be spread around the room for a kind of super-charged poster/discussion session.**
- **Each of them will teach you a key concept from critical thinking or brain sciences in a ten-minute session.**  
(presentation, 5 min.; discussion, 5 min.)
- **There will be three sessions, so you can choose the three topics you are most interested in.**
- **After that, we will have a 15-minute “Un-conference,” which is a session for free discussion on any topic related to the day’s events.**

**JALT Critical Thinking SIG Topics**

**Confirmation Bias**

(It is right because I agree with it!)

**Begging the Questions**

(It is true because it is true!)

**The Dunning-Kruger Effect**

(You think you are so smart. Ha! I know more than you!)

**JALT Mind, Brain, and Education SIG Topics**

**Reading and Working Memory**

(Working Memory is a key executive function)

**Predictive Processing**

(The brain is a prediction machine)

**Embodied Cognition**

(How the brain makes meaning)

Thank you for participating in today's event.  
We hope that it was both useful for you as an educator and can have a positive impact on your classrooms.



JALT Critical Thinking SIG  
[www.jaltcriticalthinking.org](http://www.jaltcriticalthinking.org)



JALT Mind, Brain, and Education SIG  
[www.neuroelt.org](http://www.neuroelt.org)

