

2012

ETJ English Teachers in Japan
Empowering Learners and Teachers



International Conference

FAB3



Connecting Neuroscience with ELT

JULY 14-16

University of Kitakyushu



Marc Helgesen

Curtis Kelly

Robert S. Murphy

Tim Murphey



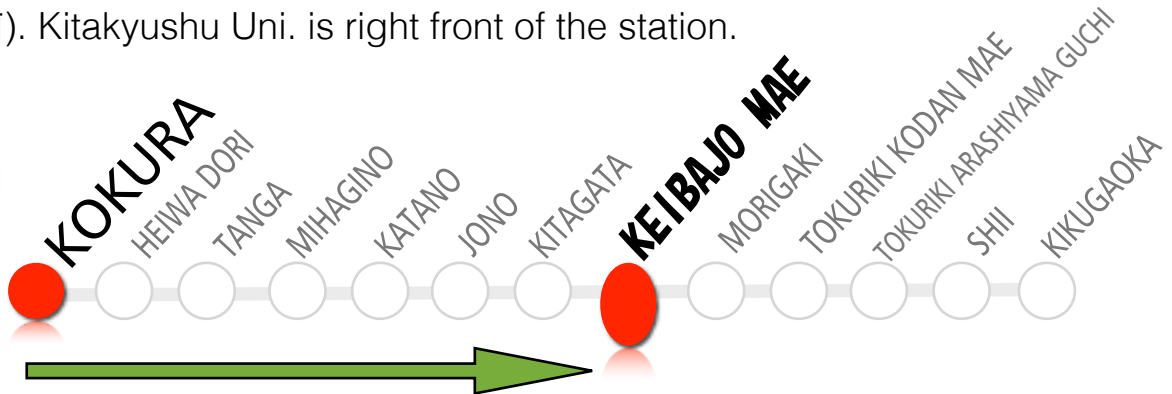
Special Guest Presenter
David Paul

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TRANSPORTATION

From JR Kokura stn. use the monorail and get off at **KEIBA JO MAE** (競馬場前). Kitakyushu Uni. is right front of the station.



CLOTHES



Japanese summers are hot! The air conditioning at the university will likely be set to 28°C in accordance with city energy policy. We suggest wearing cool tropical wear such as aloha shirts and shorts!



LUNCH

Order lunch by July 10 (¥ 600) (fab3event@gmail.com)

or

Bring your own lunch (cafeteria will be closed)



SOCIAL EVENT

懇親会

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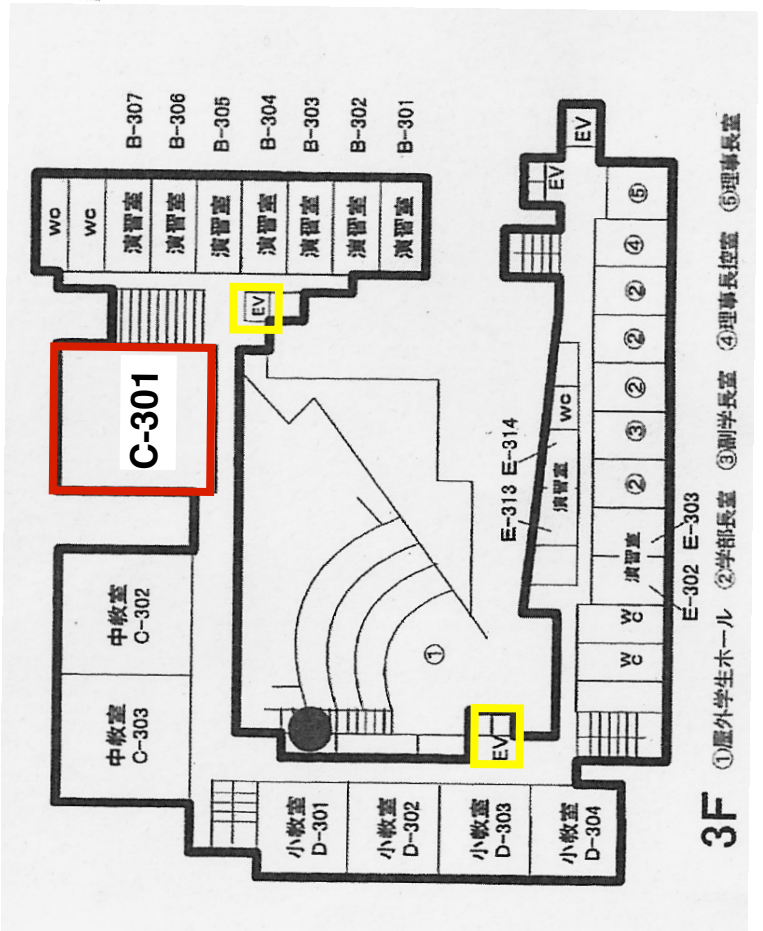
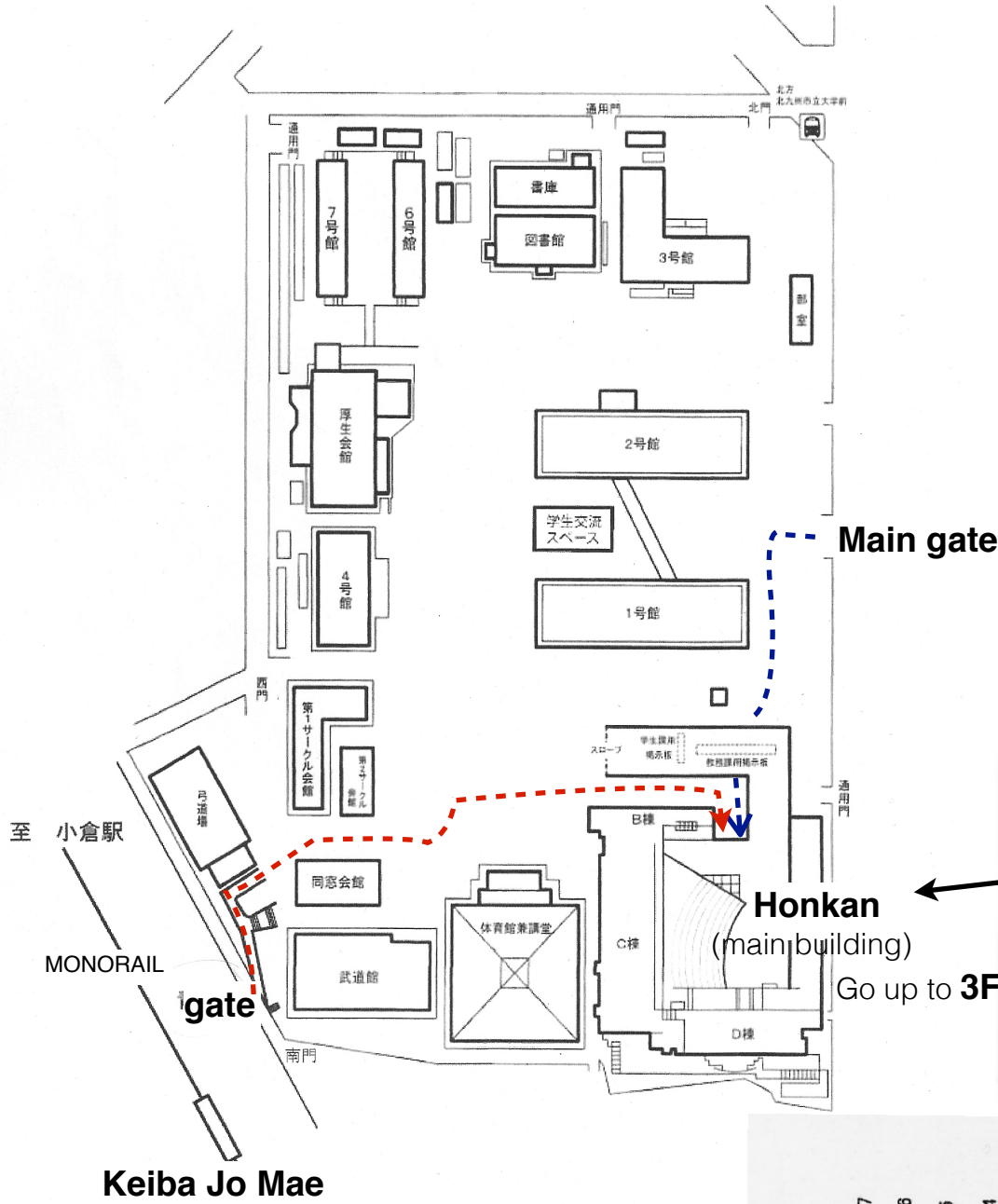
Saturday, July 14
at 7:30p.m. ~ 9:30p.m.

All you can eat & drink
¥ 3600/women ¥4100/men

PATONG RESORT
3-6-23 Kyo-machi, Kokura-kita
Very close to Kokura stn. & COLET IZUTSUYA
Organiser : Ai Murphy 090-5084-2622



北九州市立大学 北方キャンパス 案内図



Saturday

July 14

9:30 - 9:50

"Power Sessions" Day 1 Group work

10:30 - 11:30 **Robert S. Murphy***

Neuromyth-busters, Brain Anatomy for TEFL,
Memory & Learning

11:40 - 12:10

POSTERS

C.Oana Why is music helpful in teaching English:
some cognitive neuroscience evidences

T.Wang Hemispheric preferences related to
cognitive and affective learning outcomes of
Taiwanese elementary school students

S.Hamamoto Neuroscience and English
Education at Elementary Schools

12:10 - 1:00 **LUNCH BREAK**

1:00 - 2:30 **Curtis Kelly***

The neuroscience of lesson design

2:40 - 3:00 **C.Thompson & M.Phillips** Creating
bilingual brains in the classroom - is it both
possible and practicable?

3:10 - 3:30 **J. Vitta** Understanding thematic and
semantic listing at the pedagogical and cognitive
psychological levels

3:40 - 4:30 **CONCURRENT**

C-301 **J.Oda-Biro & Y.Watanabe** Unlocking the
potential in your dyslexic students

C-302 **K.Maher** Neuroplasticity in the SLA classroom:
Connecting brain research to language learning

C-401 **E.Head** Using your body to get in touch with
your brain

4:40 - 5:40 **Tim Murphey***

Diversity peering mirroring neurons

5:50 - 6:30 **Marc Helgesen***

"Power sessions" synthesis

SAT. 14

SUN. 15

MON. 16

09:30 - 09:50

"Power Sessions" Day 1 Group work

10:30 - 11:30

Robert S. Murphy

Neuromyth-busters, Brain Anatomy for TEFL, Memory & Learning

Kitakyushu University ✉ m@murphyschool.com

Neuromyth-busters, Brain Anatomy for TEFL, Memory & Learning



11:40 - 12:10

POSTERS

Cernomazu Oana Belle Toyota Kindergarten ✉ [oanacerno@yahoo.com](mailto: oanacerno@yahoo.com)

Why is music helpful in teaching English: some cognitive neuroscience evidences

Tzu-Ling Wang National Hsinchu University of Education ✉ tlwang@mail.nhcue.edu.tw

Hemispheric preferences related to cognitive and affective learning outcomes of Taiwanese elementary school students

Satoko Hamamoto Yasuda Women's University ✉ shamamot@yasuda-u.ac.jp

Neuroscience and English Education at Elementary Schools



12:10 - 12:55

LUNCH BREAK

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or

Bring your own lunch (cafeteria is closed)



01:00 - 02:30

Curtis Kelly

The Neuroscience of Lesson Design



Kansai University ✉ ctskelly@gmail.com

The Neuroscience of Lesson Design

Knowing how the brain works is the first step towards good teaching, but it requires the second step as well: knowing how to apply this knowledge to your teaching. Let's look at a few critical factors of learning and think about ways to weave them into your lessons, whether that means modifying textbook activities, or writing your own. The key factors include deep processing, repetition, emotion, extensive anything, the human factor, and most important, meaningfulness.

02:40 - 03:00

20 mins session



Colin Thompson
Michael Phillips

Shimonoseki University ✉ colinthompson711@gmail.com

Ritsumeikan Asia Pacific University ✉ michaelphillips@fastmail.fm

Creating bilingual brains in the Japanese classroom - is it possible and practicable?

This presentation will briefly discuss some of the main viewpoints of the bilingualism debate in the average Japanese EFL classroom. One viewpoint argued is that even though equable L1-L2 fluency is the ideal, it is unachievable given the average conditions that exist within many EFL L2 learning environments. A more hopeful viewpoint is that degrees of bilingual-like competency are possible, and should be promoted and encouraged by teachers and educators where- and whenever possible.

03:10 - 03:30

20 mins session

Joseph Vitta

Sookmyung Women's University ✉ vittajp@gmail.com

Understanding thematic and semantic listing at the pedagogical and cognitive psychological levels

Thematic and semantic vocabulary listing are useful ELT tools that are supported by cognitive psychological theories. The purpose is to show how cognitive psychological theories supporting each type of listing shows the EFL instructor when to employ each based on perceived students' needs and desires. By understanding how schema theory (Brewer and Nakamura, 1984), interference theory, and the distinctiveness hypothesis (Tinkham, 1997) define and support thematic listing, attendees will gain a deeper understanding of how this technique works and learn why it is an optimal way of presenting new lexical items to students to promote long-term productive retention. Alternatively, attendees will learn how the semantic field theory (Seal, 1991) works as a theoretical underpinning for semantic listing. Through this explanation, one gains an understanding of when and how to use this type of listing to help their students when it comes to short-term passive/receptive lexical knowledge.



Jan Oda-Biro

A.M. English Services, Owner [✉Yoitle@hotmail.com](mailto:Yoitle@hotmail.com)

Unlocking the potential in your dyslexic students

Dyslexia affects 8-10% of the population world-wide. Many teachers feel unprepared to teach dyslexic students. This presentation will give a brief overview of what dyslexia is, how to recognize the symptoms and what you can do to reduce the barriers to learning. Myths and facts about dyslexia will be covered, and participants can try a simulation exercise that mimics a type of dyslexia. With greater understanding and empathy for the dyslexic experience, any teacher can help a dyslexic student make the adjustments to maximize learning.



Yukiko Watanabe

C-301



Kevin M. Maher

Kansai Gaidai University [✉kmaher@kansaigaidai.ac.jp](mailto:kmaher@kansaigaidai.ac.jp)

Neuroplasticity in the SLA classroom: Connecting brain research to language learning

This presentation will be presented in three parts. First is to identify key characteristics to the communicative second-language acquisition (SLA) classroom. Secondly, how is neuroplasticity relevant to what we know about second language acquisition? Lastly, what can we learn about SLA through an awareness of neuroplasticity?

Part I discusses the communicate SLA classroom. Key components will include teacher talk, linguistic space, fluency building exercises and maximizing pair work activities. This section, quickly discussed, will set the stage for connecting the importance of knowing more about neuroplasticity in our language-oriented classrooms.

Part II examines the field of neuroplasticity, and what is most applicable to the SLA learning environment. Key topics will include current tools for brain mapping, pioneering brain studies, the brain of bilingual speakers, synaptogenesis, brain plasticity, adult language learning, and selective attention. Additionally, to give a broader picture of neuroplasticity, it will briefly discuss language areas of the brain (Broca's Area and Wernicke's Area), and feral children (children raised in isolation).

Part III will include applying SLA Theory to what we know about neuroplasticity. This will examine the Access to UG Hypothesis, the Acquisition-Learning Hypothesis, automaticity, connectionism, structured focus, and Interaction Hypothesis. Through examining these features, we'll conclude with how what we know about SLA is interconnected with what neuroplasticity teaches us about the brain.

By the end of this presentation, attendees should have a fuller picture of how SLA and neuroplasticity are connected.

C-302

Ellen Head

C-401

Kansai Gaidai University ✉ ellenkobe@yahoo.com**Using your body to get in touch with your brain**

Most of us know that we are not equivalent to our brains. But we are not sure where the boundaries are or how to communicate with our brains in order to trigger different brain states (for learning, for relaxing and on.) In this workshop the presenter will share simple techniques from NLP and mind-body work which have been useful in a) raising the question with students b) giving students or teachers various handles which they can use to understand, monitor and change their mind-body states, especially when they are tired or discouraged. The workshop aims to be both experiential and thought-provoking. Participants will get a chance to experience and share their own takes on activities related to the following areas: "Where do we put our attention and how can we shift it?" "Different people, different processing styles" "Pick-me-ups for tired students", "Goal setting and dialogues with your unconscious mind".

04:40 - 05:40

Tim Murphey**Diversity peering mirroring neurons**Kanda University of International Studies ✉ mitsmail1@gmail.com**Diversity peering mirroring neurons**

It is well understood that people feel more comfortable mirroring near peer role models. However, being able to also mirror diversity brings with it many benefits. Diversity peering brings otherwise distant models into one's zone of possible development (ZPD) and increases one zone of proximal adjusting (ZPA). Such diversity peering also promotes more empathy, altruism, and peace.

05:50 - 06:30

"Power Sessions" Synthesis

07:30 - 09:30

SOCIAL EVENT

Get to know FABulous Friends!
→ *See page 2*



Sunday

July 15

9:30 - 9:50 *PECHA-KUCHA!*

T.Murphey & M.Helgesen *

10:30 - 11:30 **Robert S. Murphy ***

Pechakucha session, Dynamic Skill Theory & Cognitive development, Spock's Error

11:40 - 12:10 *PECHA-KUCHA!*

M.Orleans Six Activities for Instilling the Rhythms of English

M.Swanson Technology and motivation to learn... does one lead to the other?

A.Barcelos

12:10 - 1:00 *LUNCH BREAK*

1:00 - 1:50 **David Paul *** Personal construct psychology and its implications in the classroom

2:00 - 2:20

"Power Sessions" Day 2 Group work

2:30 - 2:50 **M.Broido & I.Shiloh** Harnessing the Narrative Brain: An Account of a Learning Experiment

3:00 - 3:20 **Graham Pluck** Curiosity: linking neuropsychological function with motivation to learn

3:40 - 4:30 *CONCURRENT*

C-302 **P. Roux** The individual mental lexicon: Exploring how words grow in the mind

C-303 **J. Jensen** What infant phoneme acquisition studies imply for foreign language teachers

4:30 - 5:40 **Marc Helgesen ***

Happiness 2.0

5:50 - 6:40 **R.Murphy & M.Helgesen ***

"Power sessions" synthesis

SAT. 14

SUN. 15

MON. 16

09:30 - 09:50

PECHA KUCHA!

Tim Murphey & Marc Helgesen

10:30 - 11:30

Robert S. Murphy

PK, Dynamic Skill Theory & Cognitive development, Spock's Error



Kitakyushu University ✉ m@murphyschool.com

PechaKucha session, Dynamic Skill Theory & Cognitive development, Spock's Error

11:40 - 12:10

PECHA KUCHA!

Margaret Orleans Seinan Jo Gakuin University ✉ tommysibo@yahoo.com

Six Activities for Instilling the Rhythms of English

Malcolm Swanson Seinan Jo Gakuin University ✉ mswanson@pukeko.ws

Technology and motivation to learn... does one lead to the other?

12:10 - 12:55

LUNCH BREAK

Order lunch by July 10 (fab3event@gmail.com)

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01:00 - 01:50

David Paul

Personal construct psychology and its implications
in the classroom



Language Teaching Professionals ✉ david@ltprofessionals.com

Personal construct psychology and its implications in the classroom

George Kelly's principle work 'The Psychology of Personal Constructs' was written in the 1950's but anticipated and is highly compatible with many of the findings of recent brain research. In this presentation, David Paul will look at some of the key concepts in personal construct psychology and at the practical application of these concepts in the classroom.

02:00 - 02:20

"Power Sessions" Day 2 Group work

02:30 - 02:50

20 mins session

Monica Broido
Ilana ShilohTel Aviv University, Israel [✉monbroido@gmail.com](mailto:monbroido@gmail.com)Tel Aviv University, Israel [✉ishilo@colman.ac.il](mailto:ishilo@colman.ac.il)**Harnessing the Narrative Brain: An Account of a Learning Experiment**

Chomsky famously maintained that the human brain seems genetically programmed to acquire language. The same claim may potentially apply to narrative. Recent advances in cognitive neuroscience suggest that the creation of narrative in the human CNS is mediated by a regionally distributed neural network (Young and Saver, 2001). Narrative, then, is not just a story – it is an inborn meaning-making structure. It offers the grid through which we apprehend, interpret, and make sense of experience (Bruner 1986, Polkhorne 1988, Rossiter 2002.) Part of the power imbued in narrative is the fact that it is grounded in both emotion and cognition, as is the successful learning process. Stories trigger our emphatic response: we identify with the characters and relate their plight to our life experience. In so doing, stories invite us to discover and produce meaning, and the construction of meaning is inherently cognitive. The learning process functions in the same manner: emotional and cognitive involvement is crucial for the absorption and lasting retention of knowledge. Narrative is something inherently human, which all of us know and understand intuitively. It can, therefore, be employed as a powerful learning tool to teach more abstract and less intuitive concepts. Successful tertiary education involves reading academic expository texts. In Israel, where the majority language is Hebrew, most academic texts are in English. All Israeli universities require their graduates to complete academic reading comprehension courses in English. This requirement has become an insurmountable problem for immigrants arriving from primarily rural and illiterate societies. The hierarchic, linear and analytic structure of Western rhetoric is at odds with the practices of oral cultures, in which narrative plays a central role. In the College of Management in Israel, we designed an EAP reading comprehension course for Ethiopian students who had suffered multiple failures in the past. We created a program in which the young immigrants' innate and cultural familiarity with narrative was harnessed to the acquisition of cognitive and rhetorical skills. The program has met with great success and its implications are the focus of the present paper.

03:00 - 03:20

20 mins session

Graham PluckChuo University, Tokyo [✉g.pluck@sheffield.ac.uk](mailto:g.pluck@sheffield.ac.uk)**Curiosity: linking neuropsychological function with motivation to learn**

Damage to the cortex of the human frontal lobes usually causes significant cognitive and personality changes. Indeed, the three primary syndromes following frontal lobe lesion are marked by dysexecutive features, disinhibition and apathy. Patients often become overly dependent on environmental stimuli and remain inactive when environmental cues to act are not available. To account for these behavioral changes, neuropsychological models have suggested a distinction between routine information processing driven by external stimuli and effortful attentive processing driven by internal cognitive processes. The former routine

system is used when the events and actions are predictable. The latter attentional system is activated when novel situations are encountered or information on how to act is not available to the person. Such information gaps have been shown to generate curiosity even in normal healthy populations. Curiosity, in essence, motivates the individual to find out the missing information. Furthermore the additional attention paid to information gaps produces better recall later on. Further research has elaborated the information gap theory and defined contexts where the stimulation of curiosity is maximized. Such theory has implications for how teaching practice in general can be enhanced to motivate students. Many methods of English language instruction already inadvertently include features which are consistent with the information gap theory. Nevertheless, a more detailed understanding of the conditions under which curiosity is stimulated could enhance teaching practice.

03:40 - 04:30

CONCURRENT

50 mins sessions

Peter Roux

C-302

Ritsumeikan Asia Pacific University, APU ✉ enrouxte@yahoo.co.uk**The individual mental lexicon: Exploring how words grow in the mind**

This presentation focuses on how the mind enmeshes new words into the mental lexicon. It is based on an exploratory study that used a word-association technique aimed at discovering how L2 learners engaged with new vocabulary. The presentation will address three areas: the mental lexicon, associative language learning, and vocabulary acquisition. It intends to involve the audience in a discussion of the mental lexicon and how vocabulary acquisition occurs in English as an L2. Aside from presenting some literature on the mental lexicon and vocabulary acquisition, it will further address the role of memory and creative language learning. Audience participation (in the form of small groups) is envisaged to further encourage discussion of how the mind engages with new language forms. To guide and inform this discussion, a word-association technique will be utilised with the audience.

**James Jensen**

C-303

Aka-Kara English ✉ jensen@leto.eonet.ne.jp**What infant phoneme acquisition studies imply for foreign language teachers**

This presentation will discuss the relationship between infant phoneme acquisition studies and teaching a foreign language. It will start with an historical account of the developments in infant language acquisition studies. It will discuss the timeline trajectory and the mechanisms in the neural circuits that support or disrupt phonetic learning in foreign or second language acquisition. This presentation will discuss what infant phoneme acquisition studies tell us about neural plasticity and the “critical period.” It will discuss the factors that may facilitate or limit the acquisition of foreign language phoneme perception skills. Three questions will be addressed. First, to what extent can foreign language learners’ first language phonemic architecture be modified? Second, what do infant language acquisition studies tell us about the constraints that cause difficulties for such modifications? And third, what methodologies are the most effective for modifying a foreign language learner’s native phonemic architecture? To conceptualize what is taking place, this presentation will use the Native Language Magnet Theory developed by Dr. Patricia Kuhl.

04:30 - 05:40

Marc Helgesen**Happiness 2.0**

Miyagi Jogakuin Uni. ✉ march@mgu.ac.jp

Happiness 2.0

Positive Psychology explores happiness, positive emotion and those things that allow us to flourish. In this session, we'll look at some key ideas from positive psychology and brain science and ways to use them in the classroom via activities with clear language and communication goals. Specifically, we'll look at some of the more recent developments in Positive Psychology and Brain Science. These ideas consider happiness in the greater context of well-being. This includes Martin Seligman's PERMA Model (Positive Emotion, Engagement, Relationships, Meaning, Accomplishment), Mihaly Csikszentmihalyi's concept of Flow and Barbara Fredrickson's Positive Emotion Tipping Point (it really is a scientific concept, not just a metaphor). We will also consider negative emotions – the uses of stress as well as the dangers of amygdala hijack. We'll connect them to practical, motivating English Learning tasks.

05:50 - 06:20

"Power Sessions" Synthesis

06:20 - 06:40

Brain Jokes!? - Marc Helgesen

Monday

July 16

9:30 - 9:50

"Power Sessions" Day 3 Group work

10:30 - 11:30 **Robert S. Murphy***

Neuro-EFL pedagogy, Teaching for Understanding, EEGs in the classroom!

11:40 - 12:10

POSTERS

C. Taylor Transforming an Informal Learning Space: An Action Research Project

B. Cullen & S. Mulvey

Updating the Neuroscience of NLP

A. Murphy

Brain Food: the GOOD, the BAD and the UGLY

12:10 - 1:00 **LUNCH BREAK**

1:00 - 1:30 **PECHA-KUCHA!**

M. Amelsvoort The Challenge of High School English Classes

G. Sinha The amygdala and creativity

M. Dailey English movie making and EFL – a project based learning approaches

1:40 - 2:00 **T. Uemura** Motivating Japanese learners of English with a Confucian Heritage Culture

2:10 - 2:30 **C. Thompson** Designing and sequencing narratives for L2 oral development

2:40 - 3:00 **D.K. Groff** The Zen Brain and the Art of Language Acquisition

3:40 - 4:30 **CONCURRENT**

C-301 **A. Jenkins** Neuroscience, psychology and the teaching of vocabulary

4:10 - 5:40 **Robert S. Murphy***

Putting it all together! "Power Sessions" synthesis

5:40 - 6:00 **Closing Q&A session***

09:30 - 09:50

"Power Sessions" Day 3 Group work

10:30 - 11:30

Robert S. Murphy

Neuro-EFL pedagogy, Teaching for Understanding, EEGs in the classroom!

Kitakyushu University  m@murphyschool.com**Neuro-EFL pedagogy, Teaching for Understanding, EEGs in the classroom!**

11:40 - 12:10

POSTERS

Clair TaylorGifu Shotoku Gakuen University  clairmtaylor@gmail.com**Transforming on Informal Learning Space: An Action Research Project****Brian Cullen**Nagoya Institute of Technology  cullen.brian@gmail.com**Sarah Mulvey**Nanzan University  sarahmulvey@yahoo.ca**Updating the Neuroscience of NLP****Ai Murphy**Murphy School of Education  rita@murphyschool.com**Brain food: the GOOD, the BAD and the UGLY**

12:10 - 12:55

LUNCH BREAK

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01:00- 01:30

PECHA KUCHA!

Marcel Van Amelscoort *Kanagawa Prefectural Institute of Language and Culture Studies*
✉ em_leopold@yahoo.com

The Challenge of High School English Classes

Geoffrey Sinha

Tama University, School of Global Studies ✉ sinha@tama.ac.jp

The amygdala and creativity



Michael Dailey

Kurume Kougyou Daigaku ✉ dailey2001@yahoo.com

English movie making and EFL – a project based learning approach



01:40 - 02:00

20 mins session

Takashi Uemura

University of Birmingham, UK ✉ t_daddy2007@yahoo.co.jp

Motivating Japanese learners of English with a Confucian Heritage Culture

In 2011, BBC referred to 'cooperative capitalism' as the major reason why Japanese businesses recovered so quickly from the devastating tsunami and earthquake in Fukushima. The underlying idea is said to be 'Confucianism' which can be described as group-oriented, interdependent and cooperative nature of behavior. Considering those attributes, the author will explore how teachers can motivate Japanese learners of English with a 'Confucian Heritage Culture'. The key theories are not only the mainstream motivational concepts such as Dörnyei's 'Ideal L2 Self' and motivational strategies but stimulating 'international posture', encouraging 'cooperative learning', and implementing 'group dynamics' in the classroom. First, Yashima (2002) pointed out that motivation appears to be influenced by what she termed 'international posture'. Among the concept are attraction to international affairs, desire to visit abroad on business or for pleasure, willingness to communicate with intercultural associates, and some facets of open attitude toward other cultures (Yashima, 2002). Second, Dörnyei (1997) demonstrated that an individual student's motivation is directly enhanced by cooperative learning per se. Fundamental motivational factors include goal-orientedness, group cohesiveness, peer motivation, learner autonomy, intrinsic interest, self-confidence, and reduction of resistance to learning (ibid.). Finally, teachers need to be conscientious of the nature of group development to orchestrate the classroom activities effectively. According to Dörnyei and Murphey (2003), groups take four developmental phases: group formation, transition, performing and dissolution. Furthermore, successful groups have tendency to be cohesive (ibid.).

02:10 - 02:30

20 mins session

**Colin Thompson***Shimonoseki University* ✉ colinthompson711@gmail.com**Theory of Mind: designing and sequencing narratives for L2 oral development**

Understanding and explaining the reasons behind other people's actions and beliefs has drawn considerable research in the field of cognitive psychology and theories regarding child language development. The ability to explain the psychological and mental states that cause other people to perform actions is known as 'theory of mind.' This ability begins early in a child's linguistic development with the use of psychological state terms (happy), and desire words (like). At about the age of 3, children begin to use cognitive state terms to refer about other people e.g. 'she thinks', 'she knows' which show a child's ability to reason about other people's actions. The use of cognitive state terms generates a boost in a child's syntactic development due to the complex linguistic structures that accompany cognitive state terms such as relative clauses 'he thinks that he likes a dog which has long ears'. With this in mind, Robinson showed how tasks that require the use of cognitive state terms could also generate the complex L2 structures that accompany them. This study reports how narratives were designed to elicit mental state verbs 'he thinks' etc, and as a result, were subsequently able to generate complex L2 production in the form of relative clauses for intermediate-level university students. In terms of L2 oral development, the Cognition Hypothesis (Robinson 2003) states that tasks which are sequenced according to an increase in their cognitive demands can facilitate favourable conditions for L2 development. This study shows how narratives can be designed and sequenced so that they increase in cognitive complexity, and as a result, pushes learners' output creating gains in L2 fluency, complexity and accuracy.

02:40 - 03:00

20 mins session

**David K. Groff***Meiji University* ✉ d.k.groff@gmail.com**The Zen Brain and the Art of Language Acquisition**

Zazen meditation, in addition to its spiritual and stress-reduction benefits, has a long connection with traditional Japanese martial-arts training in disciplines such as kendo, aikido, and kyudo; however, the result of its application to other types of skills training has been little investigated. Drawing on current research into brain function, this presentation argues that meditative techniques (such as zazen) may have a priming effect on the acquisition of new skills, including language learning, and that this effect has a basis in the neurophysiology of the brain. It is based on a number of premises, including that the acquisition of skills involves physical changes in

brain structure (neuroplasticity), that language learning is part of that same process, that conscious attention is required for effective language learning, and that brain function consists of a number of processes running in parallel, but that in general, only one of those functions can occupy consciousness at any one time. The presentation then goes on to outline the theory of a “global workspace”, with an actual physical locus in the brain, as the foundation for consciousness. According to this theory, control of this global workspace, and thus conscious attention, is based on synchrony of brain-wave patterns between various areas or “modules” of the brain, often with competing functions. Meditative practices have long been proven to allow a degree of control over brain-wave patterns; thus, this paper argues, they may allow a higher degree of control over the physical adaptations that are required for language learning, essentially by reducing the amount of “noise” in the brain, in terms of the conflicting brain-wave patterns of various brain “modules” seeking to control the global workspace at the same time. Finally, the presentation suggests some possible test designs for investigating this hypothesis.

03:40 - 04:30

50 mins session

Adam JenkinsShizuoka Institute of Science and Technology  jenkins@ob.sist.ac.jp

C-301

Neuroscience, psychology and the teaching of vocabulary

The fields of cognitive neuroscience and psychology have advanced to the stage where inferences can be made as to how vocabulary knowledge is stored in the brain. This presentation is a demonstration of how research from the fields of psychology and cognitive neuroscience can be applied to language teaching pedagogy and in particular, vocabulary. The first half of the presentation will be an overview of relevant research from several fields of study, focusing on the concepts of vocabulary depth and breadth, and illustrating how vocabulary is stored in highly connected semantic networks. The second half of the presentation will be a demonstration of how this research can be directly applied to vocabulary teaching methods, with an analysis of the strengths and weaknesses of each method for vocabulary acquisition.

04:10 - 05:40

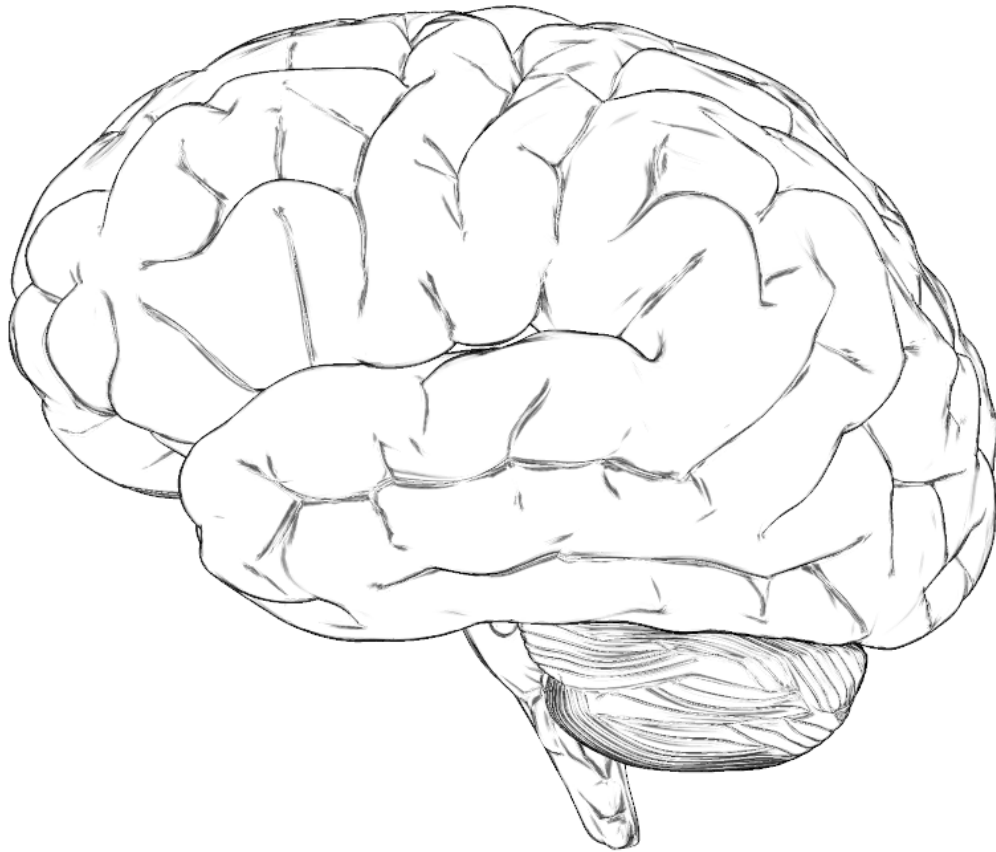
Robert S. Murphy

Putting it all together! “Power Sessions” synthesis



05:40 - 06:00

Closing Q&A session



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Language Teaching Professionals

Supporting the professional development of teachers

