



TRACEY NOEL TOKUHAMA-ESPINOSA

EDUCATOR



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EDUCATION

- July 2008**
Ph.D. **Capella University, Minneapolis, Minnesota, USA**
Doctoral thesis on the emerging discipline of Mind, Brain and Education science (the intersection between neuroscience, psychology, and education): "The scientifically substantiated art of teaching: A study on the development of standards in the new academic field of neuroeducation." Average grade: "A".
- May 1987**
Ed.M. **Harvard University, Cambridge, Massachusetts, USA**
Master's thesis on educational philanthropy: "Philanthropy and education" and degree in International Education Policy. Studies on the comparative educational systems around the world and the concept of intelligence. Graduated with distinction.
- May 1986**
B.A and B.S. **Boston University, Boston, Massachusetts, USA**
International Relations (B.A) and Communications (B.S.), graduated with honors (*magna cum laude*). Two degrees in four years with summers in Japan and Spain.

WORK EXPERIENCE

- 2012–present**
Professor **Harvard University Extension School**
Professor of "Neuroscience of Learning: An Introduction to the, Mind, Brain, Health and Education" a 100% online, flipped, synchronous course that received a rating of 5.0/ 5.0 from students; named one of three exemplary courses.
- 2019–present**
Secretary-Treasurer **American Educational Research Association**
Secretary-Treasurer of the Brain, Neurosciences, and Education Special Interest Group.
- 2016–present**
Associate Editor **Nature Partner Journal Science of Learning**
Responsible for evaluating articles and identifying reviewers on learning sciences research.
- 2015–present**
Director **Connections: The learning sciences platform**
Director of a platform that offers evidence-based materials to improve teachers' knowledge, skills and attitudes about the learning sciences, technology, bi- and multilingualism and quality education.
- 1997–present**
International Consultant **International Consultant**
International consultant in educational institutions, universities, with central and local governments, businesses and NGOs in more than 40 countries.
- 2014–present**
Professor, Researcher **Facultad Latinoamericana de Ciencias Sociales, Quito**
Latin American Social Science Research Faculty. Professor of educational policy and thesis reviewer.
- 2003–2013**
Professor, Researcher **Universidad San Francisco de Quito, Ecuador**
Director of the Teaching and Learning Institute; educational researcher; Director of Online Learning; Professor; Researcher.
- 2013–2017**
Expert Panel Member **Organization for Cooperation and Economic Development**
Helped determine the new pedagogical knowledge necessary for teachers in OECD countries.
- 2008–present**
Invited Professor **Guest Lecturer**
University of Chile, Faculty of Medicine; University College of London; University Khon Kaen, Thailand; University of Jönköping, Sweden.

PROFILE

Tracey's vision is to improve the social, democratic and economic structures of countries through better educated populations. She is the Educational Director of Connections: The Learning Sciences Platform which provides free resources to teachers in English and Spanish, is author of nine academic books, and consultant to hundreds of schools in 40 countries. Tracey teaches a course at the Harvard University Extension School called "Neuroscience of Learning: An Introduction to Mind, Brain, Health and Education" and is the Associate Editor of Nature Partner Journals *Science of Learning*.

Her research includes improved indicators to measure educational quality; learning in the digital age; the expansion of the field of Mind, Brain and Education; paradigm changes using appropriate technologies; bilingualism and multilingualism; and the general improvement of teacher training practices.

PROFESSIONAL SKILLS

- Excellent research skills
- Strong leadership skills
- Creation of online and face-to-face courses
- Professional writer

LANGUAGES

- English ●●●●●●●●●●●●●●●●
- Spanish ●●●●●●●●●●●●●●●●
- French ●●●●●●●●●●●●●●●●
- German ●●●●●●●●●●●●●●●●
- Japanese ●●●●●●●●●●●●●●●●

TECHNICAL SKILLS

- Canvas ●●●●●●●●●●●●●●●●
- Zoom ●●●●●●●●●●●●●●●●
- ScreenFlow ●●●●●●●●●●●●●●●●
- Microsoft Office ●●●●●●●●●●●●●●●●

CONNECT

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PUBLICATIONS

Ansari, D., König, J., Leask, M. & Tokuhama-Espinosa, T. (2017). Developmental cognitive neuroscience: Implications for teachers' pedagogical knowledge. In S. Guerrero (Ed.) *Pedagogical knowledge and the changing nature of the teaching profession*. Paris, France: OECD Publications. <http://dx.doi.org/10.1787/9789264270695-en>

Barnette, E. & Tokuhama-Espinosa, T. (2013). *The International Baccalaureate in Ecuador: Implications for quality education? Investigación sobre la implementación del Bachillerato Internacional en los colegios fiscales del Ecuador 2013*. Bethesda, MD: International Baccalaureate Research Office.

Betts, K., Miller, M., Tokuhama-Espinosa, T., Shewokis, P., Anderson, A., Borja, C., Galoyan, T., Delaney, B., Eignenauer, J., & Dekker, S. (2019). *Neuromyths and evidence-based practices in higher education: An international study*. Newburyport, MA: Online Learning Consortium.

Borja, C., Tokuhama-Espinosa, T. & Nazareno, J. (in preparation). *Barriers to the application of evidence-based teaching*. San Francisco, CA: AERA.

Hobbiss, M., Massonnié, J., Tokuhama-Espinosa, T., Gittner, A., Lemos, M., Tovazzi, A., Hindley, C., Baker, S., Sumeracki, M., Wassenaar, T., Gous, I. (2019) 'UNIFIED': Bridging the researcher-practitioner divide in Mind, Brain, and Education: Transdisciplinary thinking. *Mind, Brain, and Education*.

PREAL, Grupo FARO, Fundación Ecuador. (2010). *Informe de progreso educativo Ecuador 2010*. Primary researchers: Tracey Tokuhama-Espinosa and Daniela Bramwell. Washington, DC: PREAL.

Sah, P., Fanselow, M., Quirk, G.J., Hattie, J., Mattingley, J. & Tokuhama-Espinosa, T. (2018). The nature and nurture of education. *npj Science of Learning* 3(2018), 6. doi:10.1038/s41539-018-0023-z. Retrieved 8 Apr 2018 from <https://www.nature.com/articles/s41539-018-0023-z.pdf>

Tokuhama-Espinosa, T. (2022). Neuromyths. In S. Della-Salla's *Encyclopedia of behavioral neuroscience*. Elsevier.

Tokuhama-Espinosa, T. (2021). *Bringing the neuroscience of learning to online teaching*. Columbia University Teachers College Press.

Tokuhama-Espinosa, T. (2020). *The role of technology in advancing our understanding of the learning brain*. UNESCO.

Tokuhama-Espinosa, T. (in review). *What do kids want to know about their own brains?* *Frontiers*.

Tokuhama-Espinosa, T. (2019). *The five pillars: Redesigning education to suit the brain*. New York, NY: W. W. Norton.

Tokuhama-Espinosa, T. (2019). A Translational, Transdisciplinary, International and Multi-modal Exchange to Enhance Mind, Brain and Education Research. In *Bridging the gap: Opportunities challenges and lessons from four knowledge translation initiatives*. AERA Roundtable. San Francisco, CA: AERA.

Tokuhama-Espinosa, T. (2019, December). The learning sciences framework in educational leadership. *Frontiers in Education* 4, p. 136.

Tokuhama-Espinosa, T. (2018). *Differentiating university course instructional design*. New York, NY: AERA.

Tokuhama-Espinosa, T. (2018). *Neuromyths: Debunking false ideas about the brain*. New York, NY: W. W. Norton.

Tokuhama-Espinosa, T. (2018). *Using research from the learning sciences to improve teaching (original title: International Delphi Panel on Mind, Brain, and Education, 2017)*. New York, NY: AERA.

Tokuhama-Espinosa, T. (2018 Apr). *The brain, technology and the social Darwinism of universities*. New York, NY: American Education Research Association.

Tokuhama-Espinosa, T. (2018 Apr). *Advances in Mind, Brain, and Education science over the past decade*. New York, NY: American Education Research Association.

Tokuhama-Espinosa, T. (2017). *Second international Delphi Panel on Mind, Brain, and Education Science: What has changed 10 years later?* DOI: 10.13140/RG.2.2.14259.22560

Tokuhama-Espinosa, T. (2016). Conexiones con la calidad educativa. En A. Arellano (ED.), *Hacia una sociedad educadora: Propuestas para el debate* (pp.80-111). Quito, Ecuador y Ottawa, Canada: Grupo FARO y la Iniciativa Think Tank.

Tokuhama-Espinosa, T. (2016). *Análisis y consenso en la construcción participativa del perfil del bachiller ecuatoriano. En Fortalecimiento de la calidad educativa a través del ajuste de la progresión de los estándares de aprendizaje y ajuste del currículo del Ministerio de Educación*. Quito, Ecuador: Organización de Estados Iberoamericanos y el Ministerio de Educación de Ecuador.

EXTERNAL EVALUATOR

- AERA Open
- American Educational Research Association
- ASCD
- Cambridge University Press
- *Frontiers in Education*
- *Language and Cognition* journal
- *Mind, Brain, and Education* journal
- MIT Press
- *PLOS Biology*
- Routledge
- *Science of Learning* journal

PROFESSIONAL ORGANIZATIONS

- American Educational Research Association (**AERA**)
- Founding Member of the Global Learning Sciences Network (**GSoLEN**)
- Founding Member of the International Forum of Researchers in Education (**IFORE**)
- Global Science of Learning Network
- International, Mind, Brain, and Education Society (**IMBES**)
- Society For Neuroscience (**SfN**)
- The United Nations Delegations Women's Club
- United Nations Women's International Forum, Executive Board Member
- World Educational Research Association (**WERA**)



PUBLICATIONS

Tokuhama-Espinosa, T. (2016 Oct). *You can't get apples from a pear tree*. Keynote presented at Korea TESOL Annual Conference, Seoul, South Korea. *KOTESOL Journal*.

Tokuhama-Espinosa, T. (2016 Oct). *Evidence-based teaching in multilingual classrooms*. Presented at Korea TESOL Annual Conference, Seoul, South Korea. *KOTESOL Journal*.

Tokuhama-Espinosa, T. (2016 Oct). *Creating a personalized professional development program to enhance 21st century skills*. Presented at Korea TESOL Annual Conference, Seoul, South Korea. *KOTESOL Journal*.

Tokuhama-Espinosa, T. (2015). *El perfil ecuatoriano: Desde la educación hacia la sociedad*. Quito, Ecuador: Ministerio de Educación del Ecuador con financiamiento de la OEI.

Tokuhama-Espinosa, T. (2015). Celebrating the complexity and multidimensionality of "quality" in education: Toward a new process of choosing indicators that measure in ways that better reflect context. In *World Education Research Association (WERA) Yearbook* (pp.114-159). New York, NY: Routledge.

Tokuhama-Espinosa, T. (2015 Sept). *One way neuroscience can improve pre-literacy and early math*. Paper presented at the World Education Research Association (WERA) Focal Meeting Corvinus University, World Education Research Association Annual Conference, Budapest, Hungary.

Tokuhama-Espinosa, T. (2014). *Making classrooms better: 50 practical applications of Mind, Brain, and Education science*. New York: W.W. Norton. ISBN-10: 0393708136 | ISBN-13: 978-0393708134.

Tokuhama-Espinosa, T. (2014). *La educación de antes y la educación de hoy*. Quito, Ecuador: UDLA.

Tokuhama-Espinosa, T. (2013). What neuroscience tells us about learning foreign languages. *New Routes Magazine*, 52 (Brazil).

Tokuhama-Espinosa, T. (2013). What is the relationship between growing up bilingual and executive functions. In K. Nemeth's *Young dual language learners: A guide for PK-3 leaders*. Philadelphia, PA: Caslon.

Tokuhama-Espinosa, T. (2013 Sept). Museos interactivos de ciencias: cómo despertar la curiosidad natural de los niños por la ciencia y la tecnología. *Para el Aula*, 15-16.

Tokuhama-Espinosa, T. (2012). What neuroscience says about personalized learning. *Educational Leadership*, 69(5).

Tokuhama-Espinosa, T. (2011). Why Mind, Brain, and Education science is the new "brain-based" education. *New Horizons for Education*, 9(1). Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2011). Who knows most about learning? Or, Why the brain isn't talked about in schools. *New Horizons for Education*, 9(1). Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2011). What Mind, Brain, and Education can do for teaching. *New Horizons for Education*, 9(1). Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2011). *Mind, Brain, and Education Science: The new brain-based education*. New York: W.W. Norton. ISBN-10: 9780393706079

Tokuhama-Espinosa, T. (2011). El cerebro, las emociones y la toma de decisiones. In N. Jaramillo, *La otra P: Fundamentos de publicidad*. Quito: Exel Impresores Gráficos, Cía. Ltda.

Tokuhama-Espinosa, T. (2011). A brief history of the science of learning Part 1 (3500B.C.E-1970 C.E.). *New Horizons for Education*, 9(1). Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2011). A brief history of the science of learning Part 2 (1970s-present). *New Horizons for Education*, 9(1). Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2011 Jul). *El diseño de un programa innovador que combine características lúdicas y académicas para la motivación de la ciencia y la tecnología en la sociedad ecuatoriana, con especial atención a niños y jóvenes*. Quito, Ecuador: Contrato con Secretaría Nacional de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT).

Tokuhama-Espinosa, T. (2011 Aug). *La elaboración de un programa híbrido de doctorados (PhD) en el Ecuador, expandido a incluir programas no híbridos*. Quito: Secretaría Nacional de Educación Superior, Ciencia, Tecnología e Innovación (SENESCYT).

Tokuhama-Espinosa, T. (2010). *The new science of teaching and learning: Using the best of Mind, Brain, and Education Science in the classroom*. New York: Columbia University Teachers College Press. ISBN-10: 0807750336

Tokuhama-Espinosa, T. (2010 Sept). *Comentario sobre "Los desafíos de la educación básica en el siglo XXI de Juan Carlos Tedesco"*. Quito, Ecuador: European Commission.

RECENT PRESENTATIONS

- **Abu Dhabi, United Arab Emirates** International Conference on Educational Neuroscience, Emirates College for Advanced Education
- **Atlanta, Georgia** AA Technology Education
- **Atlanta, Georgia** Woodward Academy
- **Bacolod, the Philippines** International Educators' Conference 2017 West Negros University in Bacolod, Philippines
- **Bangkok, Thailand** Bangkok International School
- **Barcelona, Spain** University of Barcelona
- **Bogota, Colombia** Tri-Association of Schools
- **Buenos Aires, Argentina** English Teachers Association
- **Delhi, India** Shiv Nadar School
- **Geneva, Switzerland** Geneva International School
- **Geneva, Switzerland** Know-It-All Parents
- **Geneva, Switzerland** Proctor and Gamble
- **Goa, India** The Association of International Schools of India
- **Guadalajara, Mexico** American School Foundation
- **Guadalajara, Mexico** Tri-Association for American Schools
- **Honolulu, Hawaii** Campbell High School
- **Honolulu, Hawaii** Kaimiloa Elementary School
- **Honolulu, Hawaii** Kamehameha Schools
- **Honolulu, Hawaii** Punahou School
- **Honolulu, Hawaii** Schools of the Future
- **Kailua, Hawaii** Le Jardin
- **Kamagawa, Japan** JALT
- **Lima, Peru** British Heads of Schools
- **Lima, Peru** Markam International School
- **Lome, Togo** International Task Force on Teachers for Education 2030
- **London, England, United Kingdom** European Association for Research on Learning and Instruction (EARLI) SIG 22 Neuroscience and Education conference
- **London, England, United Kingdom** UNESCO Teacher Education conference
- **Madrid, Spain** Universidad SEK-Universidad Camilo José Cela
- **Manhattan, New York** American Educational Research Association
- **Medowie, NSW, Australia** Medowie School
- **Monterrey, Mexico** Universidad José Martí
- **Newcastle, Australia** Medowie School
- **New Delhi, India** India Association of International Schools in India
- **New York, NY** American Educational Research Association
- **Panama City, Panama** International School of Panama
- **Panama City, Panama** Tri-Association of Schools
- **Paris, France** ELSA and the British Council of Paris
- **Perth, Australia** Catholic Primary Principals' Association of Western Australia
- **Quito, Ecuador** Instituto Nacional de Evaluación Educativa
- **Ribeiro Prieto, Brazil** Aprender Criança
- **Rome, Italy** European Council of International Schools
- **Rotterdam, the Netherlands** EP Nuffic Dutch Government
- **San Diego, California** Public Schools
- **San Francisco, California** ReImagine Education Conference
- **San Jose, Costa Rica** Ministerio de Educación en la Universidad de Costa Rica
- **San Jose, Costa Rica** Tri-Association of Schools
- **San Jose, Costa Rica** XIV Congreso Latinoamericano para el Desarrollo de la Lectura y Escritura
- **San Pedro de Sula, Honduras** Escuela Internacional Sampedrana
- **Santiago de Chile, Chile** Seminarium, Chile
- **Santiago de Chile, Chile** Trehwela School
- **Seoul, South Korea** JCALT and Korea TESOL Annual Conference
- **Singapore, Singapore** World Edulead Conference
- **St. Louis, Missouri** MICDS
- **Sydney, Australia** Mind, Brain, and Education conference, Pearsons
- **Tarlac, Philippines** State University
- **The Hague, the Netherlands** EP Nuffic, Dutch Government
- **Tokyo, Japan** Japan KTESOL
- **Toronto, Canada** American Educational Research Association
- **Valencia, Spain** INTED2021
- **Waynesville, NC** Association for the Advancement of Computing in Education, EdMedia, and the Innovate Learning Conference
- **York, Canada** York University



PUBLICATIONS

Tokuhama-Espinosa, T. (2010 Nov). *The ten key factors that influence multilingualism*. Paper presented at the Learning and the Brain Conference, Cambridge, MA: Harvard-MIT. Published in Conference Abstracts.

Tokuhama-Espinosa, T. (2010 Nov). *The scientifically substantiated art of teaching*. Paper presented at the Learning and the Brain Conference, Cambridge, MA: Harvard-MIT. Published in Conference Abstracts.

Tokuhama-Espinosa, T. (2010 Mar). *The scientifically substantiated art of teaching*. Paper presented at the Association for Curriculum and Supervision Development (ASCD). San Antonio, TX, USA.

Tokuhama-Espinosa, T. (2009). Facts and myths about the brain and learning. *Learning Landscape: Viewpoints from Learning Experts*. Johns Hopkins University School of Education.

Tokuhama-Espinosa, T. (2009 Apr). *The scientifically substantiated art of teaching: A study in the development of standards in the new academic field of neuroeducation (Mind, Brain and Education Science)*. Doctoral thesis findings presented at the American Educational Research Association (AERA). San Diego, CA. Dissertation published by ProQuest.

Tokuhama-Espinosa, T. (2008). *Living languages: Multilingualism across the lifespan*. Westport, CT: Greenwood. ISBN-10: 9780275999124

Tokuhama-Espinosa, T. (2008 Jul). *The scientifically substantiated art of teaching: A study in the development of standards in the new academic field of neuroeducation (Mind, Brain, and Education Science)*. Dissertation (PhD), Capella University, Minnesota. AAT 3310716.

Tokuhama-Espinosa, T. (2003). *The multilingual mind: Issues discussed by, for, and about people living with many languages*. Westport, CT: Praeger Press. ISBN-10: 0897899199

Tokuhama-Espinosa, T. (2000). *Raising multilingual children: Foreign language acquisition and children*. Westport, CT: Greenwood. ISBN-10: 0897897501

Tokuhama-Espinosa, T., Borja, C., & Tirira, M. (2018). *Estudio sobre tendencias innovadoras, a nivel mundial en recursos educativos digitales*. Quito, Ecuador: IPANC.

Tokuhama-Espinosa, T. & Nouri, A. (in preparation). *Mind, Brain, and Education science's history, enduring contributions and future prospects*.

Tokuhama-Espinosa, T., Nouri, A., & Daniel, D. (2020). Evaluating what Mind, Brain, and Education has taught us about teaching and learning: 2020 international survey.

https://www.researchgate.net/publication/342185018_Evaluating_what_Mind_Brain_and_Education_has_taught_us_about_teaching_and_learning_2020_International_Survey

Tokuhama-Espinosa, T. & Rivera, M. (2013). *Procesamiento inicial matemático y el fracaso escolar*. Contractado y publicado por el Gobierno Costa Rica, y el System for Integration for Central American CECC/SICA.

Tokuhama-Espinosa, T. & Rivera, M. (2013). *Estudio del arte sobre conciencia fonológica en lenguaje preescolar: El cerebro y fracaso escolar*. Contractado y publicado por el Gobierno Costa Rica, y el System for Integration for Central American CECC/SICA.

Tokuhama-Espinosa, T. & Bramwell, D. (2010 Nov). La educación ambiental y el desarrollo sostenible para niños. *Polémika*, 2(5), 1-9.

Tokuhama-Espinosa, T. & Bramwell, D. (2009). *Un nuevo modelo del Bachillerato para América Latina*. Estudio por el Ministerio de Educación del Ecuador.

Tokuhama-Espinosa, T. & Bramwell, D. (2009). El ciudadano ideal: ¿conocemos la definición de "educación de calidad"? *Polémika*, 2(1), 112-123.

Tokuhama-Espinosa, T., Ramia, N., Bramwell, D. (2009). *Mapeo y análisis de consistencia de las políticas, programas y proyectos del Plan Decenal de Educación y definición de indicadores y competencias para la formulación de un sistema de seguimiento ciudadano*. Study contracted by Grupo FARO. Quito: Grupo FARO.

Tokuhama-Espinosa, T., Creamer, M., & Hernández, L. (2006). *Fundamentos de la educación de adultos en Ecuador: Explicación de la metodología del nuevo programa de alfabetización hasta décimo de básica*. Quito: Ecuador: Ecuadorian Ministry of Education.

Tokuhama-Espinosa, T., Rivera, M., Tobar, C., Solano, I., Proaño, S., Tirira, M. & Merino, I. (2013 Nov). *International indicators of quality education: How economic status, units of analysis and culture can influence country choices of key quality indicators in education*. Paper presented at the World Education Research Association (WERA) Focal Meeting and 12th National Conference on Educational Research, Guanajuato, Mexico, 18-22 November 2013.

REFERENCES

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