CURRICULUM VITAE
KENNETH A. YATES, ED.D.

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Key Qualifications:

Dr. Kenneth Yates is a Professor of Clinical Education in the Rossier School of Education at the University of Southern California. He is also Co-Director of the Center for Human Applied Reasoning and IOT (CHARIOT), a joint center of the Rossier School of Education and the Viterbi School of Engineering to combine cutting-edge cognitive science and education research with emerging Internet of Things (IoT) technologies to revolutionize personalized learning. He has also served as the Associate Dean for Professional Development, and previously the Director of Academic Program Evaluation at Rossier. In addition to his responsibilities at Rossier, Dr. Yates has been an active researcher and advisor since 2004 at the Keck School of Medicine of USC in surgery and anesthesia, and is currently a dissertation chair and advisor in the Association for Surgical Education's Surgical Education Research Fellowship (SERF) program.

Dr. Yates teaches graduate level courses in learning, motivation, and instructional design and technology and organizational change. His research interests focus on cognitive task analysis to capture the underlying knowledge and skills experts use to perform complex tasks and solve difficult problems. He is also interested in the transfer of expertise to improve organizational and human performance, learning and instruction, and the use of educational technology. Dr. Yates has over 40 years of national and international experience in media and technology and has held executive positions at various electronic media companies. He has been an instructional media and technology consultant on a number of USAID-sponsored international training and development projects in Afghanistan, Azerbaijan, and Indonesia. He has developed training and evaluation programs for the US military, such as such as bilateral negotiations in Iraq and Afghanistan for the Army, and interpersonal skills training for leadership and counseling for the Navy.

Education:

Ed.D. Educational Psychology
University of Southern California, Rossier School of Education
Towards a Taxonomy of Cognitive Task Analysis Methods: A Search For Cognition And Task Analysis Interactions
Richard E. Clark (Chair), Allen Munro, and David Feldon

M.S., Instructional Technology
University of Southern California, Rossier School of Education

B.A., Humanities
University of Maryland, College Park

Professional Experience:

2015 – Current	Professor of Clinical Education, Rossier School of Education, University of Southern California, Los Angeles, California.
2016- Current	Co-Director, Center for Human-Applied Reasoning and IoT (CHARIOT)
2014 – 2016	Associate Dean for Professional Development, Rossier School of Education, University of Southern California, Los Angeles, California.
2011 – 2015	Associate Professor of Clinical Education, Rossier School of Education, University of Southern California, Los Angeles, California.
2009 – 2011	Clinical Associate Professor, Department of Surgery, Keck School of Medicine, University of Southern California, Los Angeles, California.
2011 – June 2014	Director of Academic Program Evaluation, Rossier School of Education, University of Southern California, Los Angeles, California.
2012 – 2013	Co-Director of Education for the Southern California Clinical Translational Science Institute (SC CTSI) Education, Career Development, and Ethics (ECDE) program.
2004 – 2010	Associate Research Professor, Center for Cognitive Technology, University of Southern California, Rossier School of Education, Redondo Beach, California. Senior Research Associate and Senior Instructional Designer (2004-2009).
	Design, developed, and conducted workshops to train US government project managers on guidelines and procedures for evaluating the instructional designs of outside contractors for large distance learning projects. Conducted workshops to train instructional designers on the use of cognitive task analysis methods and training design. Conducted research at the Keck School on the use of cognitive task analysis methods to improved training in surgical skills.
2005 – 2006	Checchi and Company Consulting, Inc., Kabul, Afghanistan, Information and Communications Technology Specialist. Conducted a Needs Assessment in collaboration with the Afghanistan Minister of Justice to obtain baseline data that included cognitive task analysis methods to define the appropriate levels of training and technology requirements to implement a three-part system (a) for creating, maintaining and updating of a database containing the "official" texts of governing legal documents of the Government of Afghanistan on an accurate and timely basis, (b) for distribution of the database over the World Wide Web, together with tools for searching and retrieving documents in the database, and (c) for distribution of the database on CD-ROMs with similar searching and retrieving tools.
2004 – 2005	National Center for State Courts, Baku, Azerbaijan, Information and Communications Technology Consultant. Designed a legal information database system under contract with the United States Agency for International Development to provide public access to the Constitution and Laws of the Government of Azerbaijan over the Internet and CD-ROM. Conducted cognitive task analysis with staff within the workflow user environment, and developed training materials for updating and maintaining the database. Drafted the

specifications for the public user interface application. Evaluated the completed software for compliance with the specifications prior to the release of the database to the general public over the Internet.

2001 – 2003: Checchi and Company Consulting, Inc., Jakarta, Indonesia, Information and Communications Technology Consultant. Designed distance learning programs working with US law professors and the University of Indonesia to deliver advanced law courses (Bankruptcy, Intellectual Property Rights, Evaluation of Proposed Legislation, Survey of the American Legal System and International Sales Transactions) to foreign students through distance education technology under a contract with the United States Agency for International Development. Conducted cognitive task analysis with staff of the Supreme Court of Indonesia to determine the design requirements for a system to electronically publish the Court decisions of the over the Internet to achieve transparency; worked with subject matter experts to create a multi-media CD ROM and web application for assessing legislation for members and staff of the Indonesian Parliament.

1987 – 2001 President of various media and technology companies including: cable television networks (2), electronic media transactions, electronic retailing, and media production.

Peer Reviewed and Invited Journal Articles

Sullivan, M.E., Yates, K.A., Inaba, K., Lam, L., & Clark, R.E. (2014). The use of cognitive task analysis to reveal the instructional limitations of experts in teaching procedural skills. *Academic Medicine, 89*(5), 811-816. DOI: 10.1097/ACM.0000000000000224

Embrey, K., Yates, K. (2013). The use of cognitive task analysis to improve anesthesia skills training for postoperative extubation. *Anesthesia eJourna 2*(2). www.aej-digital.com/aej/volume_2_issue_2.

Clark, R.E., Pugh, C.M., Yates, K.A., Inaba, K., Green, D.J., & Sullivan, M.E. (2012). The use of cognitive task analysis to improve instructional descriptions of procedures. *Journal of Surgical Research.* http://www.ncbi.nim.nih.gov/pubmed/22099596.

Yates, K., Sullivan, M., & Clark, R. (2012). Integrated studies in the use of cognitive task analysis to capture surgical expertise for central venous catheter placement and open cricothyrotomy. *The American Journal of Surgery,203*(1), 76-80.

Campbell, J., Core, M., Artstein, R., Armstrong, L., Hartholt, A., Wilson, C., Georgila, K., Morbini, F., Haynes, E., Gomboc, D., Birch, M., Bobrow, J., Chad Lane, H., Gerten, J., Leuski, A., Traum, D., Trimmer, M., DiNinni, R., Bosack, M., Jones, T., Clark, R.E., & Yates, K.A. (2011). Developing INOTS to support interpersonal skills practice. *Aerospace Conference.* IEEE.

Campbell, J., Tirapelle, L., Yates, K., Clark, R.E., Inaba, K., Green, D., Plurad, D., Lam, L., Tang, A., Cestero, R., & Sullivan, M. (2011). The effectiveness of a cognitive task analysis informed curriculum to increase self-efficacy and improve performance for an open cricothyrotomy. *Journal of Surgical Education,* 68(5), 403-407.

Shapiro, C. E. & Yates, K. A. (2011). Establishing A Sustainable Legal Information System In Azerbaijan: A case study. *Electronic Journal of Information Systems in Developing Countries, 46*

Yates, K. A., & Feldon, D. F. (2011). Towards a taxonomy of cognitive task analysis methods for instructional design: Interactions with cognition. *Theoretical Issues in Ergonomics Science.*

Yates, K. A., & Shapiro, C. E. (2010). Establishing a sustainable legal information system in a developing country: A practical guide. *Electronic Journal of Information Systems in Developing Countries, 42.*

Feldon, D. F., & Yates, K. A. (2007). Increasing validity in the evaluation of new distance learning technologies. *Computers in Human Behavior, 23*(5), 2355-2366.

Book Chapters

Yates, K. A., & Clark, R. E. (2012). Cognitive Task Analysis. In J. Hattie and E. Anderson (Eds.). *International handbook of student achievement*. Routledge Publishers

Clark, R. E., Yates, K., Early, S. & Moulton, K. (2010). An Analysis of the Failure of Electronic Media and Discovery-based learning: Evidence for the performance benefits of Guided Training Methods. In K. H. Silber, & R. Foshay (Eds.). *Handbook of training and improving workplace performance, Volume I: Instructional design and training delivery.* Somerset, NJ: Wiley.

Sullivan, M. E., Yates, K. A., Baker, C. J., & Clark, R. E. (2010). Cognitive task analysis and its role in teaching technical skills. In S. Tsueda, D. Scott, and D. Jones (Eds.). *Textbook of simulation, skills and team training.* Woodbury, CT: Cine-Med.

Clark, R. E., Feldon, D., Van Merriënboer, J. J. G., Yates, K., & Early, S. (2008) Cognitive Task Analysis. In Spector, J. M., Merrill, M. D., van Merriënboer, J. J. G., & Driscoll, M. P. (Eds.). *Handbook of research on educational communications and technology (3rd ed.).* Mahwah, NJ: Lawrence Erlbaum Associates.

Publications in Preparation:

Yates, K.A., Flynn, C., & Clark, R.E. The relative efficiency of two strategies for conducting cognitive task analysis.

Yates. K.A., et al. The Use of Cognitive Task Analysis to determine the number of surgeons required to accurately capture instructional descriptions of surgical procedures

Yates, K.A., & Gucev, G.V. Cognitive Task Analysis for instruction in single-injection ultrasound guided-regional anesthesia.

Jury, M., Lim, N., & Yates, K.A. Cognitive Task Analysis and implications for teaching expository writing.

Academic Conferences (peer-reviewed)

Flynn, C.L., Yates, K.A., & Clark, R.E. (2014). The relative efficiency of two strategies for conducting cognitive task analysis. Poster presented at the Annual Meeting of the American Education Research Association.

Yates, K. A., Feldon, D. F., and Clark, R. E. (2011, April). *Using Cognitive Task Analysis to Capture Expert Knowledge and Skills for Research and Instructional Design.* Workshop presented at the American Educational Research Association, New Orleans, LA.

Yates, K. A., Sullivan, M. E., & Clark, R. E. (2011, March). *Integrated Studies in the Use of Cognitive Task Analysis to Capture Surgical Expertise for Central Venous Catheter Placement and Open Cricothyrotomy.* Paper presented at the meeting of the Association for Surgical Education, Boston, MA.

Yates, K. A., Sullivan, M. E., & Clark, R. E. (2011, March). *Using Cognitive-Task-Analysis to Capture Expert Knowledge and Skills for Research and Instructional Design.* Workshop presented at the meeting of the Association for Surgical Education, Boston, MA.

Sullivan, M. E., Yates, K. A., Clark, R. E., Green, D., Tang, A. Cestero, R., Plurad, D., Lam, L., & Inaba, K. (2011, March). *The Use of Cognitive-Task-Analysis to Reveal the Instructional Limitations of Experts in the Teaching of Surgical Skills.* Poster presented at the meeting of the Association for Surgical Education, Boston, MA.

Clark, R. E. and Yates, K. A. (September, 2009). *Three Day Training on Evidence-Based Design for Distributed Learning Courses* for Training Developers at Ft. Gordon, GA.

Clark, R. E. and Yates, K. A. (September, 2009), *Three Training Design Research and Best Practice* Seminars for TRADOC scholars in residence at ICT.

Clark, R. E. and Yates, K. A. (July, 2009). Video TeleTraining Broadcast to 23 Army Schools on the *Use of Analogies in the Design of Instruction.*

Clark, R. E. and Yates, K. A. (April, 2009). Three Day Training on *Evidence-Based Design for Distributed Learning Courses* for Training Developers at Ft. Leonard Wood Missouri.

Sullivan, M. E., Yates, K. A., & Clark, R. E. (2009). *Cognitive task analysis in medical education: Where we are and where we are headed.* Invited address to the Innovations in Medical Education Conference. Los Angeles: March, 2009.

Clark, R. E. and Yates, K. A. (February 2009), *Three Training Design Research and Best Practice Seminars* for TRADOC scholars in residence at ICT.

Yates, K. A. (November, 2008). *Guided Experiential Learning and cognitive task analysis applied to immersive training.* Invited address to the Immersive Training Seminar, Institute for Creative Technologies, University of Southern California. November 19, 2008.

Yates, K. (2008). *Guided Experiential Learning: Instructional methods that overcome cognitive load limits and increase adaptive transfer.* Presented at the Learning & *the* Brain Conference. Boston, MA: April 2008.

Yates, K. A. (March, 2008). *Guided Experiential Learning and cognitive task analysis applied to immersive training.* Invited address to the Immersive Training Seminar, Institute for Creative Technologies, University of Southern California. March 6, 2008.

Clark, R. E., Pugh, C., Yates, K. A., & Early, S. F. (2008). *Using CTA to improve after action reviews (AAR) of medical events.* Presented at the Annual Meeting of the American Education Research Association. New York, New York: March, 2008.

Early, S. F., Clark, R. E., Kim, J., Yates, K. A., & Salvo, L. (2008). *Effects of guidance in a robust media environment on learning.* Presented at the Annual Meeting of the American Education Research Association. New York, New York: March, 2008.

Yates, K. (2008). *The current state of CTA in research and practice.* Presented at the Annual Meeting of the American Education Research Association. New York, New York: March, 2008.

Yates, K. A., & Feldon, D. F. (2008). *Towards a taxonomy of cognitive task analysis methods for instructional design: Interactions with cognition.* Presented at the Annual Meeting of the American Education Research Association. New York, New York: March, 2008.

Yates, K. A. (September, 2007). *Cognitive task analysis.* Invited address to the Immersive Training Seminar, Institute for Creative Technologies, University of Southern California. September 20, 2007.

Clark, R. E., Feldon, D.F., van Merriënboer, J., Yates, K.A., & Early, S. (2007). *Cognitive Task Analysis for complex learning*. Presented at the Biannual Meeting of the European Association for Research on Learning and Instruction. Budapest, Hungary: August 2007.

Clark, R. E., & Yates, K. A. (June, 2007). *Cognitive task analysis.* Invited address to the Immersive Training Seminar, Institute for Creative Technologies, University of Southern California. June 1, 2007.

Clark, R. E., Early, S. & Yates, K. (August 31, 2006) *The Suspension of Disbelief: Effects of Mediated "Presence" on Motivation and Learning.* Invited presentation to the researchers of the Institute for Creative Technologies as part of the ICT Seminar Series.

Yates, K., & Feldon, D. (2004). The *value of modularity in instructional design: Implications for improved validity in the evaluation of new techniques in distance learning*. Presented at Association for Educational Communications and Technology
Annual Conference. Chicago, Illinois: October, 2004.

Technical Reports

Loera, G., Nakamoto, J., Rueda, R., & Yates, K. (2011). An examination of
California[1]s health science capacity building programs: A multi-faceted CTE model impacting youths[1] career readiness in healthcare. Los Angeles: Career and College Transition Division, California Department of Education.

Clark, R. E., & Yates, K. A. (October 2009). *Design Document for a Learning to Learn (L2L) Course*. Prepared for the Institute for Creative Technologies, USC under a contract for Army HQ TRADOC organization. 2-13.

Clark, R., & Yates, K. A. (2009). *Game Based Instruction: Training Design for IC-COE*, Center for Cognitive Technology, Final Technical Report, University of Southern California.

Yates, K. A., & Clark, R. E. (2009). *ELECT UrbanSim Primer*, Center for Cognitive Technology, Final Technical Repor*t,* University of Southern California.

Clark, R. E., Pugh, C. M., Yates, K. A. and Sullivan, M. (June 2008). *The use of cognitive task analysis and simulators for after action review of medical events in Iraq.* Technical Report 5-21- 2008 developed for the Center for Cognitive Technology, Rossier School of Education, University of Southern California.
www.cogtech.usc.edu

University Teaching
- EDPT 576 – Technology in Contemporary Education
- EDUC 525 – Challenges in Urban Education: Learning
- EDPT 511 – Human Motivation
- EDPT 571 – Instructional Design
- EDUC 792 – Critique of Research
- EDUC 790 – Research Thematic Dissertation Seminar
- EDUC 794 – Doctoral Dissertation
- EDUC 715 – Current Issues in Learning
- EDUC 629 – Dissertation in Practice
- EDUC 595 – Instructional Design

Service to Rossier
- Curriculum Designer – USC School of Social Work
- Curriculum Designer – Master in Learning Design and Technology (with Helena Seli and Kim Hirabayashi)
- Curriculum Designer – Doctor of Education in Organizational Change and Leadership (with Melora Sundt)
- Chair, Thematic Group – Improving Instruction for Professional Education (Capturing Expertise using Cognitive Task Analysis) (2013- 2015)
- Chair, Thematic Dissertation Group -- A Gap Analysis Approach to Problem Solving in Educational Environments: An Alternative Capstone Project on the Knowledge, Motivational, and Organizational Barriers to Performance Achievement (2012-2013)
- Member, Global Executive Ed.D. Steering Committee
- Member, EDUC 525 Challenges in Learning Course Revision Committee, 2004 – present
- Curriculum Designer – Master of Education in School Leadership @ USC (with Darline Robles)
- Reviewer, Ed.D. Application Review, 2011
- Member, Faculty Annual Performance Review Committee, 2011
- Chair, Dissertation Committee – Karen Embrey, Keck School of Medicine at USC, 2010-2011
- Chair, Dissertation Committee – Gligor Gucev, Keck School of Medicine at USC, 2010-2011
- Member, numerous dissertation Committees at Rossier School of Education, University of Southern California, 2010 – present.
- Member, USC Learning Management Systems (LMS) Needs Assessment Working Group, 2010
- Educational Psychology and Technology Masters curriculum revision, 2009

Service to the University
- USC HERO Project, Provost's Interdisciplinary project, 2016-2017
- Cognitive Task Analysis, USC Advancement, 2016-2017
- Educational Scholarship and Research: A Primer for Medical Educators, Keck School of Medicine, Department of Pediatrics, 2017
- Cognitive Task Analysis Workshop, Herman Ostrow School of Dentistry of USC, 2016
- Cognitive Task Analysis: Implications for Medical Education, Children's Hospital Los Angeles, 2016
- Improving Instruction Using CTA, USC Center for Excellence in Teaching, 2016
- Member, USC Learning Management Systems (LMS) Needs Assessment Working Group, 2010

Research Activities

Major Areas of Research Interest:
Cognitive Task Analysis, instructional design, curriculum development, instructional technology, learning and motivation research, assessment and evaluation, surgical skills training.

Research in Progress:

- Guided or Discovery Training Design and the Effects of Prior Knowledge

- Cognitive Task Analysis Efficiency

- Adaptive Training Using Simulations to Enhance Individual and Team Learning

- The Use of Cognitive-Task-Analysis to Develop a Competency-Based Surgical Skills Curriculum in Cardiothoracic Surgery

Grants:

PI – California Teachers Summit, 2015

Co-Director of Education. Southern California Clinical and Translational Science Institute Education and Career Development at Keck School of Medicine (2012-2013).

Co-PI. Adaptive Training to Enhance Individual and Team Learning--DARTS Phase II. 2012-2013)

Professional Affiliations

- American Psychological Society
- Association for Psychological Science
- American Educational Research Association
- American Society for Training & Development
- International Society for Performance Improvement