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Education

1990 Ph.D. University of California, Santa Barbara; Cognitive Psychology
1984 M.A. San Diego State University; Experimental Psychology
1979 A. B. San Diego State University; Cum Laude with Distinction in Psychology

Professional Experience

2014 – present Full Time Lecturer; Psychology Department, CSU, Channel Islands
2010 – 2014 Adjunct Faculty; Psychology Department, Santa Barbara City College
2008 – 2017 President; Cogniscent Research Solutions, LLC
1994 - 2007 Principal Scientist; Anacapa Sciences, Inc.
2000 – 2004 Adjunct Faculty; Psychology Department, Santa Barbara City College
1996 Spring Lecturer; Psychology Department, University of California, Santa Barbara
1989 - 1994 Senior Scientist; Anacapa Sciences, Inc.
1985 - 1989 Teaching Assistant; Psychology Department, UC Santa Barbara
1983 - 1989 Research Assistant to Dr. James Pellegrino; UC Santa Barbara
1984 (summer) Research Psychologist; Navy Personnel Research and Development Center
1982 - 1983 Research Staff; Navy Personnel Research and Development Center
1981 - 1983 Instructor/Teaching Assistant; San Diego State University
1980 - 1981 Research Staff; Navy Personnel Research and Development Center

Teaching Experience

2014 – present History of Psychology; Research Methods and Statistics I and II; Social Psychology; Learning, Cognition and Perception; Attention, Multitasking, and Dual Processing Research Lab at CSUCI
2014 Social Psychology; Brooks Institute of Photography
2010 – 2014 Introductory Psychology, Social Psychology, Child Development, Research Methods in Psychology; Santa Barbara City College
2000 - 2004 Research Methods in Psychology; Santa Barbara City College
1996 Introductory Statistics; UCSB
1988 Research Methods in Psychology; UCSB
1987 Experimental Lab. in Personality; UCSB
1983 – 1987 Introductory Psychology, Research Methods, Perception, Educational Psychology; T.A., UCSB
1981 – 1983 Introductory Psychology; Instructor, San Diego State University

Professional Associations

American Psychological Association, American Educational Research Association, Association for Psychological Science, Human Factors Society, Psychonomic Society, Association for the Advancement of Medical Instrumentation,

¹ Susan Fischer Beers publishes under Susan C. Fischer

Professional, Committee, and Community Service

Psychology Club Advisor for Santa Barbara City College
Planning and Resources Committee representative for Social Sciences Division of Santa Barbara City College
Student Learning Outcome (SLO) working group for Psychology Department at Santa Barbara City College
Instructor for GATEWAY Tutor Program at Santa Barbara City College
Developer of Directed Learning Activities and Test for Critical Reading Comprehension under a Basic Skills Initiative Grant for the PSS committee at Santa Barbara City College
Association for the Advancement of Medical Instrumentation (AAMI) and American National Standards Institute (ANSI); Human Factors Engineering Committee Member
Dos Pueblos Engineering Academy Foundation, Mentor, and Grant Writer
Santa Barbara Soccer Club, Executive Board Member, Grant Writer, and Team Manager
State Street Ballet, Guild Member
Hope School District, Math Superbowl Teacher

Research Interests

Dual processing, attention and automaticity; multitasking; critical thinking; human learning and skill acquisition; multimedia distance education, user error and medicine.

Educational Products

Computerized Training for Critical Thinking (CT)². (CT)² is a distance-education multimedia system that develops students' abilities in eight critical thinking skills.
Multi-tasking Ability Test (MTAT). The MTAT is a web-based assessment tool that measures the ability to multi-task. www.multitaskingtests.com
Shared Mental Model Practice Gaming and Exercise (SAMEPAGE). SAMEPAGE is a computer-based multi-media education system that assists teams in developing and managing a shared mental model.

Grants and Awards

2010 Naval Sea Systems Command, N00167-11-P-0026. *Develop Valid Performance Measures for Multi-tasking Environments*. Project Role: Principal Investigator
2007 Office of Naval Research, N000-14-07-M-0069. *Collaborative Knowledge Management for Net-Centric Systems*. Project Role: Principal Investigator
2005 Army Research Institute, Washington DC; W74V8H-05-C-0014. *Multi-tasking assessment for personnel selection and development*. Project role: Principal Investigator
2004 Office of Naval Research; N00014-04-M-0405. *Development of a Multi-tasking Ability Test*. Project role: Principal Investigator
2004 Army Research Institute, Fort Leavenworth, Kansas; W74V8H-04-C-0007, Phase 3. *Web-based Training for Theoretically Derived Critical Thinking Skills, Phase III*. Project role: Principal Investigator
2003 Office of Naval Research; N00014-03-M-0083. *Measuring Multi-tasking Ability*. Project role: Principal Investigator

- 2003 Army Research Institute, Fort Leavenworth, Kansas; DASW01-03-C-0013. *Development of a Shared Mental Model Management Tool*. Project Role: Co-Principal Investigator.
- 2002 Air Force Research Laboratory; F33615-02-M-6005. *Professional Leadership Development*. Project role: Principal Investigator
- 2001 Army Research Institute, Fort Leavenworth, Kansas; DASW01-00-C-0006, Phase 2. *Web-based Training for Theoretically Derived Critical Thinking Skills*. Project role: Principal Investigator.
- 2000 Army Research Institute, Fort Leavenworth, Kansas; DASW01-00-C-3013, Phase 1.5. *Functional Requirements for Web-Based Training of Critical Thinking*. Project role: Principal Investigator
- 2000 Army Research Institute, Fort Leavenworth, Kansas; DASW01-00-C-3013, Phase 1. *Application Of A Theory Of Critical Thinking To Army Command And Control*. Project role: Principal Investigator
- 1996 National Institutes of Health; Heart, Lung, and Blood Institute. *Nursing Error and Infusion Pumps*. Project Role: Principal Investigator.
- 1994 National Institutes of Health; National Cancer Institute; R44 CA65419-01, Phase II. *Designer's aid for infusion pumps to minimize user error*. Project Role: Principal Investigator.
- 1993 National Institutes of Health, National Cancer Institute; R43 CA65419-01, Phase I. *Designer's aid for infusion pumps to minimize user error*. Project Role: Principal Investigator.
- 1992 Food and Drug Administration, Contract #466902. *Pretesting an instruction manual for a home infusion pump*. Project Role: Principal Investigator.
- 1992 National Science Foundation, Grant #9160456. *Feasibility of aiding decisions through automated data retrieval from the perspective of practicing physicians*, with Geiwitz, J. and Klatzky, R. L. Project Role: Key Investigator.
- 1991 Army Research Institute, Ft. Leavenworth, Kansas; MDA903-91-C-0243. *Training strategies for tactical pattern recognition*, with M'Closkey, B. and Geiwitz, J. Project Role: Co-Principal Investigator.

Educational Workshops

- Fischer, S. C. (2007). *Critical Thinking in the Context of Other Cognitive Capabilities*. Invited address at the 7th Annual Special Operations Force Conference. Joint Special Operations University at Fort Hurlburt, Florida.
- Fischer, S. C. (2004). *Workshop on Developing and Implementing Training in Critical Thinking Skills in the Military*. The Frontier Conference Center, Ft. Leavenworth, Kansas
- Fischer, S. C. (2003). *What is Critical Thinking and what does the research say?* Workshop for Santa Barbara City College. January 17, 2003.
- Fischer, S. C. (2001). *Training Methods for Critical Thinking*. Command and General Staff College, Fort Leavenworth, Kansas. Workshop for instructional designers on training critical thinking.
- Fischer, S. C. (2000). *A Framework for Critical Thinking Research and Training*. Workshop on Critical Thinking Skills for Battle Command. The Frontier Conference Center, Ft. Leavenworth, Kansas, December 5-6, 2000.
- Fischer, S. C. (1993-1995). *Developing Performance Evaluations for Nuclear Power Maintenance Workers*. Series of workshops teaching electric power personnel to develop valid and reliable assessment instruments. Calvert Cliffs Nuclear Power Plant, Lusby,

Maryland; Millstone Nuclear Power Plant, New London, Connecticut; Crystal River Nuclear Power Plant, Crystal River, Florida.

Publications and Research Reports

- Fischer, S. C. & Spiker, V. A. (2011). *Development of a Multi-tasking Assessment Battery*. Cogniscent Research Solutions, LLC, Santa Barbara, California.
- Ledrick, D., Fischer, S. C., Thompson, J., Sniadanko, M. (2009). An Assessment of Emergency Medicine Residents' Ability to Perform in a Multitasking Environment. *Academic Medicine* 84(9).
- Fischer, S. C., Spiker, V. A., Mautone, P. D., & Holder, E. (2007). *Predictive Validity of the Multi-tasking Ability Test (MTAT) for Three Real-world Environments*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., Mautone, P. D., Morrin, K. A., & Joslyn, S. (2007). *Construct Validity of Multi-tasking*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., Mautone, P. D., Morrin, K. A., & Joslyn, S. (2007). *Development of an Abstract Test of Multi-Tasking Ability: The Relationship of Reasoning and Working-memory to Multi-tasking*. Anacapa Sciences, Santa Barbara California.
- Morrin, K. A., & Fischer, S. C. (2007). *Development of the Multi-tasking Ability Test: Summary of Five Studies*. Anacapa Sciences, Santa Barbara, California.
- Fischer, S. C., Spiker, V. A., Harris, D. H., & McPeters, E. R. (2006). *Computerized Training in Critical Thinking (CT)²: A Skill-Based Program for Army Personnel*. Anacapa Sciences, Santa Barbara California.
- Fischer, S.C., Mautone, P.D., Morrin, K.A., & Joslyn, S. (2005). *Development of an Abstract Test of Multi-tasking Ability: Effect Of Kind And Amount Of Feedback*. Anacapa Sciences, Santa Barbara California.
- Morrin, K.A., Fischer, S.C., Mautone, P.D., & Joslyn, S. (2005). *Development of an Abstract Test of Multi-tasking Ability: The Impact of Prioritization on Predictive Validity*. Anacapa Sciences, Santa Barbara California.
- Fischer, S.C., Mautone, P.D., Morrin, K.A., & Joslyn, S. (2005). *Development of an Abstract Test of Multi-tasking Ability: Effect of Response Format*. Anacapa Sciences, Santa Barbara California.
- Fischer, S.C., Mautone, P.D., Morrin, K.A., & Joslyn, S. (2005). *Development of an Abstract Test of Multi-tasking Ability*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., & Spiker, V. A. (2004). *Critical thinking training for army officers. Volume one: Overview of research program*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., & Spiker, V. A. (2004). *Critical thinking training for army officers. Volume two: A model of critical thinking*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., & Spiker, V. A. (2004). *Critical thinking training for army officers. Volume three: A web-based training program to develop the critical thinking skills of army officers*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., Spiker, V. A., Harris, D. H., Campsey, B. (2003). *The development of shared understanding among team members*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C. (2002). *Development of a critical thinking instructional system for battle commanders*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C., Morrin, K.A., & Joslyn, S. (2003). *Measuring Multi-tasking Ability*. (No. ADA417039 (DTIC)).
- Fischer, S. C., Spiker V. A. & Berkman A. A. (2001). *Functional requirements for web-based training of critical thinking*. Anacapa Sciences, Santa Barbara California.

- Fischer, S. C. & Spiker V. A. (2000). *Application of a theory of critical thinking to army command and control*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C. (2000). *Designers Aid for Infusion Pumps to Minimize User Error*. Anacapa Sciences, Santa Barbara California.
- Fischer, S. C. (1998). *Designer's aid for infusion pumps to minimize user error, Phase II*. Santa Barbara, CA: Anacapa Sciences, Inc.
- Spiker, V.A., Harp, S.F., & Fischer, S.C. (1998). *Continued development of methods to assess the usability of plant procedures*. (WO4171). Palo Alto, CA: Electric Power Research Institute.
- Harp, S. F., & Fischer, S. C. (1997). *Incidents in infusion pump use: A nationwide survey of hospital nurses*. Santa Barbara, California: Anacapa Sciences, Inc.
- Spiker, A., Fischer, S. C., & Maier, L. J. (1996). *Development of a methodology to assess the usability of plant procedures*. (WO4171-01). Palo Alto, CA: Electric Power Research Institute.
- Rogers, S. P., & Spiker, V. A., & Fischer, S. C. (1996). *Fighter cockpit precision cursor control: Experimental evaluation of head-tracked cursor control*. Santa Barbara, CA : Anacapa Sciences, Inc.
- Rogers, S. P., Spiker, V. A., Fischer, S. C. (1996). *Helmet mounted display symbology development: Principles for selecting display modality, location and format*. Santa Barbara, CA : Anacapa Sciences, Inc.
- Fischer, S. C. (1995). *Designer's aid for infusion pumps to minimize user error, Phase I*. Santa Barbara, California: Anacapa Sciences, Inc.
- Fischer, S. C., & Geiwitz, P. J. (1995). *Training strategies for tactical pattern recognition*. Ft. Leavenworth, Kansas: Army Research Institute.
- Fischer, S. C., Hickey, D., Pellegrino, J. W., & Law, D. (1994). Strategic processing in dynamic spatial reasoning tasks. *Learning and Individual Differences*, 6(1), 65-105.
- Klatzky, R. L., Geiwitz, P. J., & Fischer, S. C. (1994). Using statistics in clinical practice: a gap between training and application. In M. S. Bogner (Ed.), *Human Error in Medicine*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Law, D., Pellegrino, J. W., Mitchell, S. R., Fischer, S. C., McDonald, T. P., & Hunt, E. (1993). Perceptual and cognitive factors governing performance in comparative arrival-time judgments. *Journal of Experimental Psychology: Human Perception and Performance*, 19(6), 1183-1199.
- Fischer, S. C. (1993). *Student workbook for tactical terrain pattern recognition*. Santa Barbara, California: Anacapa Sciences, Inc.
- Fischer, S. C. (1993). *Results of repertory grid exercise*. Santa Barbara, California: Anacapa Sciences, Inc.
- Fischer, S. C., Blowers, P. A., & Bakowski, L. S. (1993). *An evaluation of the Food and Drug Administration recommendations for developing instruction manuals for home-use medical devices*. Washington, DC: Food and Drug Administration.
- Fischer, S. C., & Geiwitz, P. G. (1993). *Student text for tactical terrain pattern recognition*. Santa Barbara, California: Anacapa Sciences, Inc.
- Jordan, E., Fischer, S. C., & Davies, O. (1993). *Operational air command simulation technologies final report*. Armstrong Laboratories/HRTC, Brooks AFB, TX.
- Fischer, S. C., Blowers, P. A., & Bakowski, L. S. (1993; November). Developing instruction manuals for home-use medical devices. *Medical Device and Diagnostic Industry*, 110-114.

- Klatzky, R. L., Geiwitz, P. J., & Fischer, S. C. (1992). *Feasibility of aiding decisions through automated data retrieval from the perspective of practicing physicians*. Washington, DC: National Science Foundation.
- Pellegrino, J. W., Doane, S. M., Fischer, S. C., & Alderton, D. (1991). Stimulus complexity effects in visual comparisons: the effects of practice and learning context. *Journal of Experimental Psychology, Human Performance and Perception*, 17, 781-791.
- Fischer, S. C. & Pellegrino, J. W. (1988). Hemispheric differences for components of mental rotation. *Brain and Cognition*, 7(1), 1-15.
- Fischer, S. C. (1989). The spatial distribution of attention: a comparison of the shifting spotlight vs. resource gradient models. (Doctoral dissertation, University of California, Santa Barbara, 1989). *Dissertation Abstracts International*.
- Fischer, S. C. (1983). *Temporal integration in the cerebral hemispheres*. Unpublished master's thesis, San Diego State University, San Diego, CA.

Conference Presentations

- Cho, C., Fischer-Beers, S., Fung, C., Talbot, T. B., Korand, S., Cohen, S., Chang, T., Ben-Isaac, E., Luu, C., Espinoza, E., Sargsyan, M., Boyadjian, I., Harper, S. (2018). The use of efficient strategies predicts and improves multitasking performance. Paper presented at the annual Association for Psychological Science conference, San Francisco, CA.
- Maulhardt, S., Macintosh, A., Perez, G., Garcia, H., Snow, T., Fischer-Beers, S. (2018). Self-reports of cognition are unrelated to actual dominance of automatic thinking. Paper presented at the annual SAGE Conference, Camarillo, CA.
- Perez, G., Guerineau, O., Aguilar, J., Morgan, I., Fischer-Beers, S. (2018). Individual differences in the use of controlled processing and spontaneous trait inferences. Paper presented at the annual SAGE Conference, Camarillo, CA.
- Reyes, O., Garcia, H., Aguilar, J., Snow, T., Fischer-Beers, S. (2018). Spatial orientation ability predicts multitasking performance. Paper presented at the annual SAGE Conference, Camarillo, CA.
- Morgan, I., MacIntosh, A., Fischer-Beers, S. (2017). Task-switching and its relation to multitasking performance. Paper presented at the Southern California Conference for Undergraduate Research, Pomona, CA.
- Harper, S., Boyadjian, I., Duff, K., Fischer-Beers, S. (2017). Multitasking performance is influenced by logical strategy and logic training. Paper presented at the annual SAGE Conference, Camarillo, CA.
- Boyadjian, I., Harper, S., Jimenez, E., Rodriguez, N. & Fischer-Beers, S. (2017). *System 2 Processing Predicts Multitasking*. Paper presented at the annual Western Psychological Association Conference, Sacramento, CA.
- Dantona, A., Lewis, K., Weilbacher, E. & Fischer-Beers, S. (2017). *Extant Spatial and Verbal Working Memory Effects on Improving Multitasking Performance*. Paper presented at the annual Western Psychological Association Conference, Sacramento, CA.
- Morales, J., Duff, K., Portillo, C. and Fischer-Beers, S. (2016). Improving Multitasking Ability through Verbal Memory Rehearsal. Paper presented at the Southern California Conference for Undergraduate Research, Riverside, CA.
- Fischer, S. C., & Morrin, K. A., Mautone, T., & Joslyn, S. (2007). *Multitasking Is More Than Fluid Intelligence And Working Memory*. Paper presented at the annual Association for Psychological Science Conference, Chicago, Ill.

- Morrin, K. A., & Fischer, S. C. (2007). *The Impact Of Prioritization On Multi-Tasking Performance*. Paper presented at the annual Association for Psychological Science Conference, Chicago, Ill.
- Rogers, S. P., & Spiker, V. A, Fischer, S.C. (1997). *Effects Of System Lag On Head-Tracked Cursor Control*. In Proceedings of the Head-Mounted Displays II Conference, Orlando, FL: SPIE. [3058-02] 14-23.
- Spiker, V. A., Fischer, S. C., & Maier, L. M. (1997). *Procedure Usability Measurement Process*. Paper presented at the sixth IEEE conference on human factors and power plants. Orlando, FL.
- Fischer, S. C. (1995). *Identifying Pattern Recognition Skills In Army Officers*. Paper presented at the 39th annual meeting of the Human Factors and Ergonomics Society, San Diego, CA.
- Fischer, S. C., & Blowers, P. A. (1995). *A Behavioral Sequence Model Analysis Of Human Error With Infusion Pumps*. Paper presented at the 39th annual meeting of the Human Factors and Ergonomics Society, San Diego, CA.
- Fischer, S. C., Blowers, P. A., & Bakowski, L. S. (1993). *Developing Instruction Manuals For Home-Use Medical Devices*. Paper presented at the 37th annual meeting of the Human Factors and Ergonomics Society, Seattle, WA.
- Fischer, S. C., Spiker, V. A., & Geiwitz, J. (1992). *Constructing Maintenance Proficiency Tests*. Proceedings of the IEEE 5th Conference on Human Factors and Power Plants, Monterey, CA, June 1992.
- Fischer, S. C. (1990). *Factors Governing Performance In A Visual Interception Task*. Proceedings of the 34th Annual Meeting of the Human Factors Society, 2, 929-933.
- Pellegrino, J. W., Doane, S. M., Fischer, S. C., & Alderton, D. (1990). *Stimulus Complexity Effects In Visual Comparisons: Effects Of Practice And Learning Context*. Paper presented at the 31st annual meeting of the Psychonomic Society, New Orleans, Louisiana.
- Fischer S. C. & Pellegrino, J. W. (1988). *Individual Differences In Dynamic Spatial Reasoning Ability*. Paper presented at the 29th annual meeting of the Psychonomic Society, Chicago, IL.
- Fischer, S. C. & Hillix, W. A. (1982). *Temporal Integration In The Cerebral Hemispheres*. Paper presented at the meeting of the Western Psychological Association, Sacramento.