

Mary Catherine Niemczyk

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Arizona State University – Polytechnic
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EDUCATION

Arizona State University, Tempe, Arizona

Degree: Doctor of Philosophy, May 2002

Major: Learning and Instructional Technology

Emphasis: Instructional Technology

Dissertation: The Effect of Question Type and Grouping Strategy on Learning from a Multimedia Database

Committee: Wilhelmina Savenye, Thomas Brush, Samuel Green, James Klein, Howard Sullivan

Embry-Riddle Aeronautical University, Phoenix, Arizona

Degree: Master of Business Administration, March 1995

Emphasis: Aviation

Thesis: The Effect of a Mission Statement on the Operating Performance of the 10 Major U.S. Airlines.

Committee: Elizabeth Lyall, Ed Grazier

Arizona State University, Tempe, Arizona

Degree: Teaching Certification, May 1984

Major: Secondary Education

Emphasis: Business

Benedictine College, Atchison, Kansas

Degree: Bachelor of Arts, May 1982

Major: Accounting

PROFESSIONAL RATINGS/QUALIFICATIONS

Private Pilot - Airplane Single-Engine Land, FAA

TEACHING EXPERIENCE

Arizona State University - Polytechnic, Mesa, Arizona

Faculty Associate	2002 – 2003
Assistant Professor	2003 – 2010
Associate Professor	2010 – 2011
Department Chair, Technological Entrepreneurship & Innovation Management	2011- present

Arizona State University - Polytechnic, Mesa, Arizona

August 2003 - Present

Courses taught include Introduction to ASU 101, Aeronautical Management Technology (AMT 101), Air Transportation (AMT 308), Managing Financial Resources in Aviation (AMT 330), National Aviation Policy (AMT 408), Aviation Law (AMT 442), Airport Planning and Management (AMT 444), Airline Administration (AMT 489), Aviation Management Capstone (AMT 491), Airline Pricing and Yield Management (AMT 520), Airline Management Strategies (AMT 527), and International Aviation (AMT 528).

Arizona State University East, Mesa, Arizona

August 2002 – May 2003

Faculty Associate, Aeronautical Management Technology
 Courses taught include Air Traffic Control (AMT 201), National Aviation Policy (AMT 408), Aviation Law and Regulations (AMT 442), Airport Planning and Management (AMT 444), Airline Administration (AMT 489) and Aviation Management Capstone (AMT 491).

Arizona State University, Tempe, Arizona

August 1999 – May 2002

Teaching Assistant, Educational Psychology (EDP 310)
 Design and development of all course materials, including course objectives, instructional materials, and assessment. Modules taught include Learning & Instruction, Motivation, Assessment & Evaluation, Behavioral & Social Learning. University teaching evaluations consistently high.

RESEARCH EXPERIENCE**Arizona State University, Polytechnic*****Study: The Impact of Outsourcing Medical Care on Air Carrier Performance***

October 2010 - present

During the past decade, many US domestic air carriers have significantly reduced the structure or have sought outside medical care for airline personnel and passenger medical needs. The basis of this decision has been in efforts to cut costs, however, the impact of these reductions may be detrimental to not only the health of airline personnel and passengers, but to the operating performance of the carriers.

A likert-type survey has been distributed and analysis is currently being conducted to determine the possible impact of the outsourcing.

PI - Yvette DuBois, AMD; Co – PI – Niemczyk, Ulrich (ASU);

Study: Decision-making in the Cockpit: An Investigation of Collegiate Aviator Skills

June 2010 - present

Research by neuroscientists has indicated that the brain, in particular the prefrontal cortex (PFC), continues to develop at least well into a person's 20s. Because the brain is malleable and shaped by external influences, it appears as though the use of modern technologies, such as cell phones, the Internet, and video games, may be affecting the 'wiring diagram' of the adolescent brain. The PFC is responsible for planning, working memory, decision-making, and problem solving, among others. Some studies have found that the impact of these

technologies are actually delaying brain development and even stunting development impairing reasoning abilities.

Decision-making in the airplane cockpit is critical to safe flight. The focus of this study will be to examine the decision-making skills and abilities of collegiate aviators. Based on the results, an intervention will be developed to improve these skills.

PI – Niemczyk, ASU

A proposal is currently being developed to obtain FAA funding.

Study: *Pilot Source Study*

February 2010 – present

The 2010 Pilot Source Study, commissioned to research the success of pilots in initial training for Part 121 operations, analyzed the training performance of 2,156 new-hire pilots in the years 2005-2009. Six regional airlines provided data that was mined from human resource and pilot training files. Five university researchers independently analyzed the data and integrated their results. The study expressed success in terms of fewer extra training events and fewer non-completions in regional airline training. Statistically, the best performing pilots were those who had flight instructor certificates, graduated from collegiate accredited flight programs, received advanced (post-Private) pilot training in college, graduated with collegiate aviation degrees (any aviation discipline), and had between 500 and 1,000 pre-employment flight hours. Pilot source characteristics that had no significance in regional airline pilot training success were: having a non-aviation college degree and having prior corporate pilot or airline pilot experience.

This study consists of four phases – we are now starting Phases III and IV concurrently.

Co-PI – Smith, ERAU; Co-PI – Bjerke, UND; Co – PI – NewMyer, SIU-C
Co-PI – Niemczyk, ASU; Co-PI, Hamilton, Auburn.

Study: *Exploring Behavior-based Interventions in Flight Instructor/Instructor Pilot Training*

November 2009 – present

The development of instructional strategies is crucial to the success of students learning to be flight instructors. This study seeks to identify and improve the instructional behaviors learned during flight instructor training. The proposed effort will assess the effectiveness of training interventions based on the behavioral data that are collected in an initial simulator flight.

Co-PI - Niemczyk, ASU; Co-PI - Andrews, AFRL;
Co-PI – Fitzgerald, AFRL; Co-PI, Crow, AFRL.
This investigation is unfunded.

Study: *A Profile of Air Traffic Control Students: What is Motivating Them?*

September 2009 – June 2010

The replacement of retiring ATC personnel has created tremendous interest in the field. Large numbers of individuals have enrolled in ATC academic and training programs, however, there has been concern regarding their abilities to successfully complete

these programs. Academicians are also stating that many students do not possess the KSA necessary to perform successfully as air traffic personnel. Data collection will begin during the Fall 2009 semester to determine the motivational factors, and personality characteristics influencing air traffic management students.

This is a preliminary study leading toward a broader investigation with Kent State University. FAA funding is currently being pursued. PI – Niemczyk, ASU; Co-PI – Overchuk, Kent State University.

Study: *Aircraft Attitude Visualization Validation Study*

September 2009 – June 2011

The aircraft attitude visualization test is a 6-minute, paper and pencil test that assesses spatial ability. A version of this test has been used by the USAF since 1942 and has been found consistently to predict success in beginning flight training. There are no civilian versions, however, nor are there any other spatial tests that have been developed to explicitly assess student pilots. Test scores will be compared to flight and academic criteria to determine measures of validity.

PI – Niemczyk, ASU; Co-PI – Damos, Damos Aviation. This investigation is unfunded.

Study: *Variations in Aviation Online Instruction: What works?*

September 2009 – June 2010

In connection with the ABOR ARRO funded project, *Aviation Online: Advancing Collegiate Aviation Opportunities*, five aviation core courses were redeveloped to improve the use of online instructional strategies / delivery methods. Data will be collected from both students and instructors to determine the usability, and preferred types of online instructional strategies. Based on the data, modifications to the courses will be done during the Spring 2010 semester.

PI – Niemczyk, ASU. This investigation is funded by the ABOR ARRO grant.

Study: *The Use of Eye-Tracking to Improve Student Learning And Proficiency in Instrument Flight*

July 2009 – December 2010

Instrument flight requires a very precise method of scanning the flight instruments to control the aircraft without a visible horizon. The instrument scan is the basis of all other instrument maneuvers. Without a good scan, instrument approaches, holding and navigation are more difficult. Using an eye-tracker and flight simulator, students will fly established scenarios to determine their scan. Data from the eye-tracker and flight simulator will be compared to determine deviations. Based on the results, instructional strategies will be modified to improve instrument instruction. This is a pilot study for a broader investigation.

Co-PI – Niemczyk, ASU; Co PI – Sanchez – ASU. This investigation is unfunded.

Study: *Investigating the Impact of Generational Differences On the Aviation Industry*

May 2007 – May 2009

Previous research has determined that each generation has its own unique attitudes, work ethics, distinct, and preferred ways of managing and being managed. Today's workplace

represents the largest diversity of generations than any other time in history. The examination of generational differences among workers is a critical and underdeveloped area of investigation, particularly in aviation. The purpose of this study was to determine the work environment preferences of the *Millennial* generation in the aviation industry. The Work Environment Scale – Form I (Moos, 1994) was administered to 290 aviation personnel. Results of this study portray a complex combination of relationship, personal growth, and organizational structures of their ideal workplace preferences, dominated by desires for greater personal freedoms with less managerial interventions.

PI – Niemczyk, ASU; Co-PI - Ulrich, ASU This investigation was unfunded.

Study: *Motivation and Learning Strategies Affecting Performance in an Aviation Course*

August 2007 – May 2008

Collegiate aviation courses are very complex. The subject matter covered is oftentimes unfamiliar to students and unlike any topics they may have encountered during their high-school years. Since it is critical that students master the content, it is important to determine how they approach learning in these courses. Participants in this study completed a survey consisting of 81 motivation and learning strategies questions from the Motivated Strategies for Learning Questionnaire (MSLQ), and an open-ended question asking them to indicate the lowest course grade acceptable to them. Regression analyses of the MSLQ motivation and learning strategies found self-efficacy to be most significantly related to final course grade. Other analyses seem to indicate that learning strategies may need to be improved to promote more successful learning in these types of courses.

PI – Niemczyk, ASU. This investigation was unfunded.

Study: *Stories to Live by: Talking to Past, Present, and Future Aviators*

October 2006 – June 2007

The focus of the *Stories Project* is to better understand the experiences of women aviators and to compile these experiences to help aviation educators better serve under-represented students and help female junior and senior high school students envision themselves as aviators.

The goals of the project are to increase:

- the number of women entering flight training programs
- the enrollment of women in collegiate aviation programs
- the retention of women in collegiate aviation programs
- the success (graduation) of women from collegiate aviation programs

PI – Niemczyk, ASU; Co-PI, Husman, ASU. This investigation was funded by the Wolf Aviation Fund.

Study: *The Learning Strategies Toolbox: Supporting Students' Career Identity Development* April 2005 – September 2006

Due to the complexities of the concepts in aeronautical management technology and flight programs, it is critical to determine learning strategies that are most effective in promoting student learning. This study will provide researchers with data on both motivation and learning strategies currently used by students in aviation courses. This data will then be compared to course grades to determine possible correlations between strategy usage and successful performance. The results of this study will then enable researchers to design and develop instructional materials incorporating these specific strategies, thereby enhancing student learning.

Co-PI, Niemczyk, ASU; Co-PI, Husman, ASU.

This investigation was funded by an ABOR Learner-Centered Education grant.

Study: *Developing a New Model to Enhance Collegiate, and High School Students' Successful Careers as Commercial Airline Pilots, through Early Identification and Mentorship* September 2003 – May 2009

The Aeronautical Management Technology Department, in close alliance with partners across academia and the aviation industry, have initiated an investigation to determine the characteristics necessary to become a successful airline pilot. In response to a projected long-term shortage of commercial pilots, foundational research must be conducted on how to best identify and select high school juniors and seniors, and university-level freshmen, who are the most-suited to enter collegiate education and training programs leading to careers as commercial airline pilots. Because women and minorities comprise only a small fraction of the current commercial airline pilot workforce, the focus of this research will be to identify women and under-represented minorities, specifically, Blacks/African Americans, Hispanics, and American Indians, who have a high potential to succeed in aviation, and then mentor them for challenging careers as commercial pilots.

The critical elements of this study are to enhance the potential pool for the commercial pilot workforce through the early identification, through pre-training testing, evaluating, and screening, of those individuals who demonstrate a high propensity to succeed as commercial pilots, determining methods to overcome demographic challenges and creating awareness of career opportunities with high school students. Assuring the *quality* of the future U.S. commercial airline pilot workforce is as much of a critical concern of this research as is ensuring that there are an adequate number of qualified commercial pilots available for the airlines. From the beginning of the study, data collection has consisted of paper-pencil assessments. Computer-based assessments are under consideration.

PI - Niemczyk, ASU; Co-PI – Karp, ASU; Co-PI – Damos, Damos Aviation. This investigation was unfunded.

Arizona State University, Tempe

Study: *The Effect of Question Type and Grouping Strategy on Learning from a Multimedia Database*

January 2002 – May 2002

This study investigated the comparative effects of adjunct questions, student self-generated questions, and note taking on learning from a multimedia database. High school students worked individually or in cooperative dyads on a computer-based multimedia unit using a study guide to answer either adjunct questions, generate self-questions, or take notes to accomplish a learning task focusing on the events of the civil rights movement in the United States. Analyses were conducted using both traditional Analysis of Variance (ANOVA) techniques as well as hierarchical linear modeling (HLM). Results of the ANOVA indicated that students in the note-taking treatment condition performed significantly better than students working in the self-generated question treatment condition. However, because of the dependency of scores of students working in pairs, it was determined that HLM techniques were more appropriate. Results of these analyses did not yield significant differences in posttest scores among the treatment conditions, although the correlations of posttest scores of students working in pairs seemed to indicate possible levels of cooperation. There were also a few differences by treatment on student attitudes. Student interview responses and review of student study guides seemed to provide indications of how students utilized the questioning or note-taking strategies while working in this environment

Study: *The Effect of Token Status on Aviation Flight Performance* February 2000 – May 2002

Research proposal designed to test the effect of token status on flight task performance of both male & female collegiate aviators. Included design of research tasks, and co-authorship of NSF grant proposal.

Study: *The Relationship of Student Motivation and Self-Regulated Learning Strategies on Performance in an Undergraduate Computer Literacy Course*

August 2000 – October 2001

Qualitative research using Motivated Strategies for Learning Questionnaire (MSLQ) and open-ended questions to determine motivation and learning strategies affecting performance as determined by course grade. Results indicate higher grades associated with extrinsic goal orientation, self-efficacy, elaboration learning strategies, low test anxiety and independent learning.

Study: *Retention of Women in Collegiate Aviation*

August 1999 – December 2001

Research conducted to determine factors affecting recruitment and retention of women in collegiate aviation degree programs. Work included literature review, design and development of survey. Research participants consisted of over 400 male and female collegiate aviation students throughout the United States. Highlights of results indicates female students accommodating sociological and environmental factors between sophomore and junior years.

PROFESSIONAL EXPERIENCE

- Research Integrations, Inc. Tempe, Arizona July 1995 - May 1999
 Vice President / Co-Founder
 Developed and wrote Articles of Incorporation, company charter, and corporate bylaws. Established all corporate business and accounting guidelines and procedures. Managed all business and financial operations of corporation. Assisted all planning and conducting of aviation human performance research projects.
- Project: Automation Training for Regional and Commuter Air Carriers February 1999 - May 1999
 Summary: Defined significant issues associated with training regional and commuter air carrier pilots for flight deck automation use and developed a summary of the needs for automation training tools in regional and commuter air carrier training operations.
- Project: AATT Safety Analysis Project October 1998 – May 1999
 Summary: Conducted a safety analysis on a number of decision support tools being developed under the NASA Advanced Air Transport Technologies (AATT) program. The analysis included identifying system hazards for each decision support tool, suggesting hazard mitigation strategies, and performing preliminary risk calculations. Research Integrations' primary role in this project was to ensure that the human performance issues having safety implications were included in the safety analysis.
- Project: Analysis of Required Navigational Procedures Training at Alaska Airlines October 1997- December 1997
 Summary: Determined the presence of safety and performance vulnerabilities in RNP procedures into southeast Alaska. This included observing and participating in 737-400 RNP ground school and simulator training. Line operations, using RNP procedures into southeast Alaska, were observed and evaluated from the jumpseat.
- Project: Human Performance Analysis Tools for Aircraft Certification and Design April 1997 - May 1999
 Summary: Determined how existing human performance data can be systematically applied to aircraft certification, and to develop, demonstrate, and test tools to assist aircraft certification and design personnel with human factors design assessments.
- Project: A Comparative Analysis of Flightdecks with Varying Levels of Automation July 1995 – October 1997
 Summary: Established a global understanding of the problems and concerns associated with the use of flightdeck automation, and possible solutions for those problems. This included identification of problems and concerns throughout the aviation industry and then evaluation of those problems and concerns to determine those for which data are still required for a solution. The final results of this project can be found at <http://flightdeck.ie.orst.edu>

An additional project under this grant focused on the training of pilots who fly automated aircraft. Instructors and training management at all major US airlines and two manufacturers were interviewed for their views on training methods that have been effective, those that have not been effective, and the challenges that still need to be met for this type of training.

- Project: Pilot Performance and Aging August 1995 – October 1995
 Summary: Development of a research plan to address the effects of pilot age and expertise on performance of flight-related and non-flight-related tasks. A 5-year longitudinal study was planned with airline pilots as participants and data collected in full-flight simulators.
- America West Airlines, Phoenix, Arizona June 1993 – February 1996
 Senior Analyst, International Sales
 Managed all activities relating to the corporate and divisional budgetary/financial processes, and market research/analysis of competitive environment. Collection and dissemination of marketing data; revenue/expense analysis of current and potential international territories; coordination and development of international marketing programs.
- America West Airlines, Phoenix, Arizona June 1989 – June 1993
 Senior Analyst, Frequent Traveler Marketing
 Managed all activities relating to the corporate and divisional budgetary/financial processes. Maintain and coordinate daily operation of the frequent flyer member database. Evaluation of cost center financial performance; analysis of critical program statistics; development of management reports.
- ComputerLand Learning Center, Phoenix, Arizona February 1988 – June 1989
 Software Instructor
 Taught courses and served as a consultant for various software, including Lotus, Smart, WordPerfect, and DOS. Additionally served as a Certified Wingz Developer.
- Arizona Physicians, IPA, Phoenix, Arizona June 1986 – February 1988
 Financial Information Systems Supervisor
 Maintained IBM PC LAN; analyzed and evaluated financial data input and processing.
- Shea Middle School, Phoenix, Arizona August 1985 – June 1986
 Computer Science Instructor
 Design and development of all course materials, including course objectives, instruction, and assessment for Computer Science and Advanced Computer Science courses.
- Shadow Mountain High School, Phoenix, Arizona August 1984 – June 1985
 Business Instructor
 Design and development of all course materials, including course objectives, instruction, and assessment for Economics, Marketing, and Retailing courses.

PUBLICATIONS

Books

Niemczyk, M. (2012). *Using Your Brain to Learn: Strategies for Success* (in review).

Niemczyk, M. & Haluska, A. (2010). *Air Transportation*. Invited by Executive Editor of Delmar Cengage Publishing, Dave Boelio, to submit a proposal for an Air Transportation textbook. The proposal has been accepted. Chapter development is in progress, with book completion due April 15, 2012.

Niemczyk, M. (2009) *Improve Your Learning and Performance in the Classroom: Strategies for Success*. Kearny, NE: Morris Publishing, Inc.

Niemczyk, M. (2002). *The Effect of Question Type and Grouping Strategy on Learning from a Multimedia Database*. Unpublished doctoral dissertation.

Book Chapters

Niemczyk, M. (in print). Self-regulation and motivation. To be published in the *Encyclopedia of the Sciences of Learning* (2012). Invited by Norbert M. Seel, Editor-in-Chief of the Encyclopedia of the Sciences of Learning (Springer Publ.) and in accordance with strong recommendations of the editorial advisory board.

Savenye, W., Robinson, R., **Niemczyk, M.** & Atkinson, R. (2006) Data collection and analysis: Analyzing individual learning processes. In J.M. Spector, M.D. Merrill, J.J.G. van Merriënboer & M.P. Driscoll (Eds.) *Handbook of Research on Educational Communications and Technology* (3rd Edition).

Turney, M.A., Henley, I., **Niemczyk, M.** & McCurry, W. K. (2004). Inclusive versus exclusive strategies in aviation training. In M. Turney (Ed.) *Tapping Diverse Talent in Aviation*. Burlington, Vermont: Ashgate Publishing Company.

Funk, K.H., Lyall, E.A. & **Niemczyk, M.C.** (1997). Flightdeck automation problems: Perceptions and reality. In M. Mouloua and J.M. Koonce (Eds.) *Human-Automation Interaction: Research and Practice*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Refereed Journal Articles

Brent, C., **Niemczyk, M.**, Andrews, D., & Fitzgerald, P. (2011). Role playing in flight instructor training: How effective is it? *International Journal of Applied Aviation Studies* 11(1), 1-12.

Speicher, M. & **Niemczyk, M.** (2011). Study skills and testing strategies as indicators of medical school success. *Medical Education* (in review).

Smith, G., Bjerke, E., NewMyer, D., **Niemczyk, M.**, & Hamilton, R. (2010). Pilot source study: An analysis to pilot backgrounds and subsequent success in US regional airline training programs. *International Journal of Applied Aviation Studies*, Summer 2010, 73-96.

Mekhail, A., **Niemczyk, M.**, Ulrich, J.W., & Karp, M. (2010). Using the table reading test as a predictor of success in pilot training. *Collegiate Aviation Review*, 28(1), 101-114.

Niemczyk, M., & Savenye, W. (2010). Improving learning in computer-based instruction through questioning and grouping strategies. *Journal of Educational Multimedia and Hypermedia*, 19(1). 79-102.

Niemczyk, M. & Ulrich, J. W. (2009) Workplace preferences of millennials in the aviation industry. *International Journal of Applied Aviation Studies*, Winter 2009/2010.

Overchuk, E. & **Niemczyk, M.** (2009). Investigating the applicability of multiple intelligence theory in pilot assessment and training. *Collegiate Aviation Review*, Fall 2009.

- Niemczyk, M.** & Ulrich, J. (2009). Motivation and learning strategies influencing performance in an aviation course. *Collegiate Aviation Review*, Spring, 2009.
- Niemczyk, M.** (2008). Student approaches to learning in aviation contexts. *Journal of Aviation/Aerospace Education Research*, 18(1), 19-28.
- Smith, M.V., **Niemczyk, M.C.**, & McCurry, W.K. (2008). Improving Scoring Consistency of Flight Performance through Inter-Rater Reliability Analyses. *Collegiate Aviation Review*, Fall 2008.
- Niemczyk, M.**, & Savenye, W. (2005). Self-regulation in a computer literacy course. *Academic Exchange Quarterly* (Winter 2005 Edition), 55-61.
- Karp, M., Turney, M., Green, M., Sitler, R., Bishop, J. & **Niemczyk, M.** (2002). Retaining women in collegiate aviation programs: Implementing learning style considerations. *The International Journal of Aviation Research and Development*, 2(2), 117-133.
- Karp, M.R., Turney, M.A., Green, M., Sitler, R., Bishop, J. & **Niemczyk, M.** (2002) Retaining women in collegiate aviation by implementing learning style considerations. *Collegiate Aviation Review*, 20, 2.
- Savenye, W., Dwyer, H., **Niemczyk, M.**, Olina, Z., Kim, A., Kopp, H., Nicolaou, A. & Kopp, H. (2002). Development of the digital high school project: A school-university partnership. *Computers in the Schools*, 20(1).
- Turney, M.A., Bishop, J., Karp, M., **Niemczyk, M.**, Sitler, R. & Green, M. (2002). National survey results: Retention of Women in Collegiate Aviation. *Journal of Air Transportation*, 7(1), 69-92.
- Savenye, W.C., Olina, Z. & **Niemczyk, M.** (2001). So you are going to be an online writing instructor: Issues in designing, developing and delivering an online course. *Computers and Composition*, 18, 371-385.
- Funk, K., Lyall, B., Wilson, J., Vint, R., **Niemczyk, M.**, Suroteguh, C. & Owen, G. (1999). Flight deck automation issues. *The International Journal of Aviation Psychology*, 9(2), 109-124.

Refereed Papers in Conference Proceedings, with Presentation

- Niemczyk, M.** & Savenye, W. (2003). The effect of question type and grouping strategy on learning from a multimedia database. In Simonson, M. & Crawford, M. (Eds.) *The 25th Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology*.
- Niemczyk, M.** & Savenye, W. (2002). The relationship of student motivation and self-regulated learning strategies to performance in an undergraduate computer literacy course. In Simonson, M. & Crawford, M. (Eds.) *The 24th Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology*, 1, 312-322, (also published in ERIC).
- Niemczyk, M.C.**, Dwyer, H. & Savenye, W. (2001). Rookie camp: An introductory unit for web-supplemented instruction at the high school level. In Simonson, M.R. & Sparks, K. (Eds.) *The 23rd Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology*, 2, 44-49, (also published in ERIC).

Refereed Papers in Conference Proceedings

- Turney, M.A., Karp, M.R., Bishop, J., Green, M., Sitler, R., & **Niemczyk, M.** (2002). An applied training model in retention of women in aviation. *Proceedings of Interservice/Industry Training, Simulation, & Education Conference (IITSEC), December 2-5, 2002, Orlando, FL*.

Karp, M., Turney, M., Green, M., Sitler, R., Bishop, J. & **Niemczyk, M.** (2002). Retaining women in collegiate aviation: a data-driven model. Proceedings of Aviation Communication Conference, March 3-5, 2002, Mesa, AZ.

Savenye, W.C., Olina, Z., Kim, A., Kopp, H., Nicolaou, A., **Niemczyk, M.** & Dwyer, H. (2001). Building a web-based high school project – a school university partnership. In Simonson, M.R. & Sparks, K. (Eds.) The 23rd Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology, 1, 379-382, (also published in ERIC).

Lyall, E.A., **Niemczyk, M.C.**, Lyall, R. & Funk, K. Flightdeck automation: Evidence for existing problems. (1997). Proceedings of the Ninth International Symposium on Aviation Psychology, April 27-May 1, 1997.

Industry Publications

Lyall, B., Vint, R., **Niemczyk, M.**, Wilson, J. & Funk, K. (1998). Training approaches and considerations for automated aircraft: A summary of training development experiences. [On-line]. Available: <http://www.researchintegrations.com/publications/training-report-1998.pdf>

Lyall, E.A. & **Niemczyk, M.C.** (1995). *The effects of age on pilot performance: A research plan*. Report Number RII-95-01. Tempe, AZ: Research Integrations, Inc.

WORKSHOP PRESENTATIONS

Niemczyk, M. (2011). Developing Learning Objectives and Test Items: Key Elements of Effective Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, December 9, 2011.

Niemczyk, M. (2011). Incorporating Learning Strategies Into Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, November 11, 2011.

Niemczyk, M. (2011). Using Your Brain to Learn. Invited lecturer for a two-hour faculty development workshop. Embry-Riddle Aeronautical University, Chandler, Arizona, June 4, 2011.

Niemczyk, M. (2010). Developing Instruction Using Gagne's Nine Events of Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, December 3, 2010.

Niemczyk, M. (2010). Developing Test Items Based on Learning Objectives. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, November 19, 2010.

Niemczyk, M. (2010). Developing Learning Objectives. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, November 12, 2010.

Niemczyk, M. (2010). Incorporating Learning Strategies Into Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, October 29, 2010.

Niemczyk, M. (2010). Developing Instruction Using Gagne's Nine Events of Instruction. Two-hour Workshop. University Aviation Association, Fall Education Conference, St. Paul, Minnesota, October 5, 2010.

Niemczyk, M. (2009). Developing Instruction Using Gagne's Nine Events of Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, November 13, 2009.

Niemczyk, M. (2009). Developing Learning Objectives and Test Items: Key Components of Effective Instruction. Two-hour Workshop. University Aviation Association, Fall Education Conference, Wichita, Kansas, October 28, 2009.

Niemczyk, M. (2009). Developing Test Items Based on Learning Objectives. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, October 23, 2009.

Niemczyk, M. (2009). Developing Learning Objectives. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, October 9, 2009.

Niemczyk, M. (2009). Incorporating Learning Strategies Into Instruction. Invited lecturer for a two-hour faculty development workshop. Midwestern University, Glendale, Arizona, September 18, 2009.

Niemczyk, M. (2008). Incorporating Learning Strategies into Classroom Instruction: Assisting Students in Becoming Strategic Learners. Two-hour Workshop. University Aviation Association, Fall Education Conference, Denver, Colorado, October 15, 2008.

PRESENTATIONS

Niemczyk, M. & Nullmeyer, R. (2011). Training Approaches and Considerations for Safety: A summary of Decision-Making Training Approaches. University Aviation Association Fall Education Conference, Indianapolis, Indiana, September 30, 2011.

Niemczyk, M. & Prather, C.D. (2011). Reaching the Millennial's and Beyond. University Aviation Association Fall Education Conference, Indianapolis, Indiana, September 30, 2011.

Niemczyk, M. (2011). A Framework for Professionalism, Responsibility and Decision Making. University Aviation Association Fall Education Conference, Indianapolis, Indiana, September 28, 2011.

Niemczyk, M. (2011). Aerospace, Aviation & Arizona State University: A Winning Combination. Invited Keynote speaker for the Arizona Diversity Business Development Center Aviation Procurement Outlook & Capabilities Conference, Phoenix, Arizona, March 24, 2011.

Niemczyk, M. & Ulrich, J. (2010). Workplace Preferences of Millennials in the Aviation Industry. Invited participant for the Workforce Issues and Challenges Panel at the Air Traffic Control Association Annual Meeting, Washington, DC, October 26, 2010.

Niemczyk, M., Mekhail, A., & Ulrich, J. (2010). Using the Table Reading Test as an Indicator of Success in Pilot Training. University Aviation Association Fall Education Conference, St. Paul, Minnesota, October 6, 2010.

Niemczyk, M. (2010). Using Wiki's to Promote Research Skills. University Aviation Association Fall Education Conference, St. Paul, Minnesota, October 6, 2010.

Niemczyk, M. (2010). Decision-making in Aviation: Developing a Qualified Workforce. University Aviation Association Fall Education Conference, St. Paul, Minnesota, October 6, 2010.

Niemczyk, M. & Ulrich, J. (2010). Workplace Preferences of Millennials in the Aviation Industry. Invited speaker to Aviation Accreditation Board International (AABI) Annual Meeting, Kent, Ohio, July 15, 2010.

Niemczyk, M. (2010). Using Your Brain to Learn. Invited speaker to Midwestern University, Glendale, Arizona, June 3, 2010.

Niemczyk, M. (2010). Uncertainties in the Aviation Environment: Learning to Think Critically in the Cockpit. Invited speaker to the Southwest Aviation Weather Safety Workshop III, April 22, 2010.

- Niemczyk, M. & Ulrich, J. (2010).** Workplace Preferences of Millennials in the Aviation Industry. Invited speaker to Embry-Riddle Aeronautical University Faculty Meeting, Chandler, Arizona campus, April 17, 2010.
- Niemczyk, M. (2009).** Utilizing Pecha Kucha as an Instructional Strategy. University Aviation Association Fall Education Conference, Wichita, Kansas, October 30, 2009.
- Niemczyk, M. (2009).** Developing a Cognitive Apprenticeship to Better Assess Student Outcomes. University Aviation Association Fall Education Conference, Wichita, Kansas, October 30, 2009.
- Niemczyk, M. (2009).** Motivation and Learning Strategies Influencing Performance in an Aviation Course. University Aviation Association Fall Education Conference, Wichita, Kansas, October 30, 2009.
- Overchuk, E. & Niemczyk, M. (2009).** Investigating the Applicability of Multiple Intelligence Theory in Pilot Assessment and Training. University Aviation Association Fall Education Conference, Wichita, Kansas, October 30, 2009.
- Niemczyk, M. (2009).** Strategies for Success in Graduate School. Invited speaker to Midwestern University, Glendale, Arizona. August 27, 2009.
- Niemczyk, M. (2009).** Ensuring Success: The 4 A's of Learning. Invited speaker to Midwestern University, Glendale, Arizona. August 6, 2009.
- Niemczyk, M. (2009).** Partnering with Industry to Assess Student Outcomes: A Cognitive Apprenticeship Approach. Delivered at the Arizona State University Aviation Industry Advisory Board meeting, Mesa, Arizona, June 25, 2009.
- Niemczyk, M. (2009).** Strategies for Academic Success. Invited speaker to Midwestern University, Glendale, Arizona. June 4, 2009.
- Niemczyk, M. & McCurry, W. (2009).** Industry Advisory Boards in an Outcomes Environment. Aviation Accreditation Board International (AABI) Winter Meeting. Jacksonville, FL, February 18, 2009.
- Niemczyk, M. (2008).** Teaching the Millennial Student: Developing Active Learning in the Lecture Hall. Invited speaker to Midwestern University, Glendale, Arizona. December 2, 2008.
- Niemczyk, M. (2008).** Management Challenges of Changing Workforce Demographics: Investigating Generational Work Environment Preferences of Pilots. University Aviation Association Fall Education Conference, Denver, Colorado, October 18, 2008.
- Niemczyk, M. (2008).** Learning Strategies for Complex Concepts. Invited speaker to Midwestern University, Glendale, Arizona. October 8, 2008.
- Niemczyk, M. (2008).** Active Learning Strategies: Becoming a Self-Regulated Learner. Invited speaker at Midwestern University, Glendale, Arizona. August, 25, 2008.
- Niemczyk, M. (2007).** Aviation Management Capstone: Enhancing Learning through Practical Industry Applications. University Aviation Association Fall Education Conference. San Jose, California. October 19, 2007.
- Niemczyk, M. (2007).** Incorporating Learning Strategies into Classroom Instruction. University Aviation Association Fall Education Conference. San Jose, California. October 19, 2007.
- Niemczyk, M. (2007).** Investigating Generational Work Environment Preferences of Pilots. University Aviation Association Fall Education Conference. San Jose, California. October 19, 2007.

Niemczyk, M. (2007). Pilot Selection at the Collegiate Level. International Symposium on Aviation Psychology. Dayton, Ohio. April 24, 2007.

Niemczyk, M. (2006). Teaching students how to learn: A key to student success. University Aviation Association Fall Education Conference. Anchorage, Alaska. September 29, 2006.

Niemczyk, M. (2006). Defining aviation management: A parliamentary debate. University Aviation Association Fall Education Conference. Anchorage, Alaska. September 29, 2006.

Niemczyk, M. (2006). Aeronautical Management Technology Bridge Training Program. Emeritus Faculty Luncheon, Arizona State University, Mesa, Arizona, March 15, 2006.

Niemczyk, M. (2005). The learning strategies toolkit: Improving student learning in aviation. University Aviation Association Fall Education Conference. Champaign, Illinois, September 30, 2005.

Niemczyk, M. C. (2002). The effect of question type and grouping strategy on learning from a hypermedia database. Poster session. World Conference on Educational Multimedia, Hypermedia & Telecommunications. Denver, Colorado, June 26, 2002.

Niemczyk, M. C. (2001). Preparing doctoral students for future faculty roles. Association for Educational Communications and Technology Conference. Atlanta, Georgia, November 8, 2001.

Niemczyk, M. C. (2001). Rookie camp: An introductory unit for web-supplemented instruction at the high school level. Microcomputers in Education 2001 Conference. Arizona State University, March 14, 2001.

Turney, M.A., & Henley, I., **Niemczyk, M. & McCurry, W.K. (2001).** Inclusive strategies versus exclusive strategies in aviation training. Association of Aviation Psychologists Conference. Columbus, Ohio, March 6, 2001.

Niemczyk, M. C. (2001). Guest Lecturer: Graduate College Teaching Assistant Orientation, Arizona State University, Fall 2001.

Niemczyk, M. C. (2001). PFF Mentor: Preparing Future Faculty second-year participant mentor, Arizona State University, Fall 2001.

Niemczyk, M.C. (2000). Guest Lecturer: Learning and Instruction Symposium for International Teaching Assistants, Arizona State University, Fall 2000.

INSTRUCTIONAL MATERIALS DEVELOPED

- | | |
|---|---------------|
| Developing Instruction Using Gagne's Nine Events of Instruction
Materials for a faculty development workshop conducted at Midwestern University, Glendale, Arizona. Includes a workbook focusing on the principles Of instructional alignment, and Gagne's Nine Events of Instruction. | November 2009 |
| Developing Learning Objectives and Test Items: Key Components of Effective Instruction.
Materials for a workshop conducted at the University Aviation Association Fall Education Conference, Wichita, Kansas, October 28, 2009. Includes a workbook with information on instructional alignment, learning objectives, Bloom's revised taxonomy, types of classroom assessment, test item development, validity, reliability, and bias. | October 2009 |
| Incorporating Learning Strategies into Classroom Instruction: Assisting Students in Becoming Strategic Learners.
Materials for workshop conducted at the University Aviation Association | October 2008 |

- Fall Education Conference, Denver, Colorado, October 15, 2008.
Includes an Instructor manual describing the three levels of learning, instructional strategies, and resulting types of knowledge. Workshop participants were also provided handouts to give to their students focusing on concentration and focus, test-taking, and various other learning strategies.
- Collegiate Aviation Metacurriculum January 2006 – May 2006
Working with the ASU Aeronautical Management Technology Program, we (1) assessed students' goals, skills, and images of their future selves, (2) used this knowledge to develop tools for faculty to help students create motivating images and strategies to achieve them, (3) assisted faculty implement these tools, and (4) assessed student outcomes. This research resulted in a toolbox of learning strategies found to be most effective in promoting learning in aviation and education programs. Creation of this metacurriculum focused on enhancing student learning, student engagement and motivation, and student retention.
- America West Airlines Aircraft Maintenance and Operations Support System (AMOSS) Training Modules July 2002 – August 2004
The AMOSS system focuses on the support and advisory of the America West maintenance organization. AMOSS provides for the reporting and correcting of aircraft fault conditions that are detected during flight, or during line, overnight, or heavy maintenance. The system assists ground personnel in solving fault problems using customized programs, menus, macros, formats, templates, and data libraries. Instructional materials being developed include training sequence, selection of module and unit content, student and instructor training/reference manuals.
- Promoting Meaningful Learning March 2001
Promoting Meaningful Learning is an instructional unit developed for teachers interested in assisting their students in developing effective learning strategies. The unit includes all materials required for presentation and assessment of the instruction. Materials included are an instructor guide, overhead transparencies, student guide, pretest and posttest, pretest and posttest answer keys, and a student record sheet for recording student pretest and posttest scores.
- Rookie Camp March 2000
Rookie Camp is an instructional unit developed to introduce high school students to the use of the icons and related course management tools on the "default" WebCT course homepage. The Rookie Camp unit consists of design specs, flowchart, storyboards, and other related design documentation. A WebCT prototype unit was developed presenting information on the names and use of each of the nine icons on the "default" WebCT course homepage. Each of the icons and the course management tools they represent are explained in detail. The unit also includes study reminders, practice activities and review.
- Carpal Tunnel Syndrome: Computer Users Beware! October 1999
Carpal Tunnel Syndrome: Computer Users Beware! is a CAI program developed in Authorware 5 Attain by Macromedia for the PC. This instructional program was designed to inform computer users how to recognize the signs and symptoms of Carpal Tunnel Syndrome and to educate them about actions they can take to decrease the risk of acquiring Carpal Tunnel Syndrome.
- History of the Commercial Airline Industry in the United States, 1918-1978 October 1998
History of the Commercial Airline Industry in the United States is an instructional unit focusing on the development of the commercial airline industry. Topics

covered include initiation of airmail service, the Civil Aeronautics Act, and the impact of jet aircraft. The unit includes all materials required for presentation and assessment of the instruction. Materials included are an instructor guide, student guide, pretest and posttest, pretest and posttest answer keys.

SPONSORED RESEARCH PROJECTS

Funded projects and awards received

PI: \$109,430
Co-PI: \$6,800

Niemczyk, M. (PI). (2008). *Aviation Online: Advancing Collegiate Aviation Opportunities*. Arizona Regents Reach Out (ARRO) Grant Sponsored by the Arizona Board of Regents. **\$49,928 for 18 months**. Status: Funding awarded January 2009.

Niemczyk, M. (PI) & Husman, J. (Co-PI). (2005). *Stories to Live by: Talking to Past, Present, and Future Aviators*. Wolf Aviation Fund. **\$9,749 for 9 months**. Status: Funding awarded August 2006.

Niemczyk, M. (PI) & Husman, J. (2004). *The Learning Strategies Toolbox: Supporting Student's Career Identity Development*. Arizona Board of Regents Learner- Centered Education Program. **\$49,753 for 18 months, starting April 1, 2005**. Submitted October 12, 2004. Status: Funding awarded March, 2005.

Karp, M.R. (PI), **Niemczyk, M. (Co-PI)**, & McCurry, W. (Co-PI). (2003). *Determining Predictability for success for high school students to enter collegiate training to become commercial airline pilots*. Mesa Pilot Development, Mesa Air Group. Research Incubation Grant: **\$1,800**.

Turney, M.A. (PI), Karp, M.R. (Co-PI), Saenz, D. (Co-PI), & **Niemczyk, M. (Co-PI)**. (2000). *The effects of token status on the performance of male and female aviation students*. Arizona State University East Sustainable Technologies, Agribusiness, and Resources (STAR) Research Incubation Grant: **\$5,000**.

Additional Research Projects Submitted (\$1,025,979,431) and Status

Charles, R. (Co-PI), & **Niemczyk, M. (Co-PI)**. (2008). ATC /Flight Simulator Interface. (\$100,000). Submitted to Women in Philanthropy, October 2008. Status: Not selected for award.

Charles, R. (Co-PI), Pearson, M. (Co-PI), **Niemczyk, M. (Co-PI)**. (2008). Air Traffic Control Optimum Training Solution (ATCOTS). \$1 billion. Submitted to the Federal Aviation Administration (FAA), March 2008. Status: Not selected for award.

Niemczyk, M. (PI), Karp, M. (Co-PI), McCurry, W. (Co-PI) (2006). Developing a New Model to Enhance Collegiate, and High School Students' Successful Careers as Commercial Airline Pilots, through Early Identification and Mentorship **\$598,507 for 3 years**. Submitted to Fund for the Improvement of Postsecondary education (FIPSE), June 2006. Status: Not selected for award.

Niemczyk, M. (PI), Karp, M. (Co-PI), McCurry, W. (Co-PI) & Huebner, P. (Co-PI). (2005). Development of a Model to Identify Students' With Aptitudes Necessary for Success as Commercial Airline Pilots. **\$1,040,681 for 6 years**. Submitted to Strategic Partnerships LLC for US Department of Labor through ASU Institute of Social Science Research. Status: Not selected for award.

Husman, J. (PI) & **Niemczyk, M. (Co-PI)**. (2005). *The Learning Strategies Toolbox: Promoting Meaningful Learning*. Arizona Board of Regents Learner- Centered Education Program. **\$24,999 for 18 months, starting April 1, 2006**. Submitted October 12, 2005. Status: Not selected for award.

Karp, M.R. (PI), **Niemczyk, M. (Co-PI)**, McCurry, W. (Co-PI). (2004). *Developing a New Model to Enhance Collegiate, High School, and Elementary School Students' Successful Careers as Commercial Airline Pilots Through Early Identification and Mentorship*. **\$563,651 for 36 months, starting September 1, 2005**. Fund for the Improvement of Postsecondary Education (FIPSE), US Department of Education. Submitted November 3, 2004. Status: FIPSE funding was withdrawn by US Department of Education for 2005.

Husman, J. (PI) & **Niemczyk, M. (Co-PI)**. (2004). *The Learning Strategies Toolbox: Supporting Career Identity Development in Vocational Education*. **\$139,544 for 36 months, starting August 15, 2005**. Fund for the Improvement of Postsecondary Education (FIPSE), US Department of Education. Submitted November 3, 2004. Status: FIPSE funding was withdrawn by US Department of Education for 2005.

Niemczyk, M. (PI) & Husman, J. (Co-PI). (2004). *Stories to Live by: Talking to Past, Present, and Future Aviators*. Wolf Aviation Fund. **\$9,749 for 9 months, starting January 2005**. Status: Not selected for award.

Tripp, W. (Co-PI) & **Niemczyk, M. (Co-PI)**. (2004). *Take Control of Your Flying*. Wolf Aviation Fund. **\$10,000 starting March 2005**. Status: Not selected for award.

Karp, M.R. (PI), **Niemczyk, M. (Co-PI)**, McCurry, W. (Co-PI), & McHenry, A. (Co-PI). (2004). *Enhancing Airline Pilot Training Selection through University and Industry Partnerships*. NSF 04-556: National Science Foundation (NSF) Partnerships For Innovation (PFI) Grant. **\$599,977 for 36 months, starting 1 January 2005**. Submitted 17 May 2004. Status: Not selected for Partnerships for Innovation funding by NSF.

Karp, M.R. (PI), **Niemczyk, M. (Co-PI)**, McCurry, W. (Co-PI), Bitter, G. (Co-PI), Andrews, D. (Co-PI). (2003). *Aviation Learning and Education Research Center*. NSF 03-573: National Science Foundation (NSF) Science of Learning Centers (SLC) Grant. **\$22,892,323** for 60 months, starting 1 May 2004. Status: Not selected for Science of Learning Center funding by NSF.

PROFESSIONAL DEVELOPMENT

Pilot Selection Training Course, Damos Aviation, Chicago, Illinois, February 2006

Intermodal Transportation Safety and Security Course, Auburn University, August 2002

Preparing Future Faculty (PFF) Graduate Fellow, Arizona State University, 1999-2001

Center for Learning and Teaching Excellence (CLTE), Arizona State University

Assessment Workshop

Critical Thinking Workshop

Effective Lecturing Workshop

Creativity and Consciousness Workshop

Online Active Learning

PROFESSIONAL AND SCIENTIFIC SERVICE

National Service

- | | |
|--|---------------------|
| (1) University Aviation Association (UAA)
Chair, Curriculum Committee | Oct 2009 – Oct 2012 |
| (2) University Aviation Association (UAA)
Educator Trustee, Board of Trustees | Oct 2009 – Oct 2012 |
| (3) University Aviation Association (UAA)
Aviation Management Committee, member | Oct 2006 - Present |

- | | |
|---|-----------------------|
| (4) University Aviation Association (UAA)
Publications Committee, member | Oct 2006 - Present |
| (5) Aviation Accreditation Board International (AABI).
Industry / Educator Outcomes Committee | 2008 – Present |
| (6) National Business Aviation Association (NBAA)
Professional Development Program (PDP) Curriculum Review Committee | 2011-2014 |
| (7) Aviation Accreditation Board International (AABI).
Educator Trustee, Board of Trustees | July 2011 – July 2014 |

Accreditation Review

AABI Visiting Team Member
Kent State University
St. Louis University

September 25-28, 2010
April 10-12, 2011

Institutional Program Review

University of Oklahoma
University of Nebraska – Omaha

Fall 2010
Fall 2011

Journal and Conference Proposal Review**Journal Reviewer**

Collegiate Aviation Review (CAR) – Member of Editorial Board
Information Technology, Learning and Performance Journal – Guest Editor
International Journal of Professional Aviation Training & Testing Research – Consulting Editor
International Journal of Aviation and Aerospace Studies – Consulting Editor
International Journal of Applied Aviation Studies – Consulting Editor

Conference Proposal Reviewer

Association of Educational Communications and Technologies (AECT)

University Service**Leadership on department committees**

- (1) 2005 - Present: Chair, Academic Evaluation/Scholarship Committee. Aviation Program.
- (2) 2004 - 2008: Chair, Graduate Curriculum Committee. Aeronautical Management Technology Department.
- (3) 2003 - 2008: Chair, Student Outcomes Assessment Committee. Aeronautical Management Technology Department.

Membership on college, or university committees

- (1) 2010: College Executive Council member
- (2) 2009: University Ombudsperson Committee, Arizona State University
- (3) 2008 - 2011: ASU Academic Senate, Department of Technology Management Senator
- (4) 2006: Personnel Committee, College of Science and Technology, ASU Polytechnic Campus
- (5) 2006: Undergraduate Program and Core Curriculum Committee, ASU Polytechnic Campus
- (6) 2004: Graduate Program of Study Committee, ASU Polytechnic Campus
- (7) 2004 - 2008: Polytechnic Curriculum and Academic Programs Committee (PCAPC). ASU Polytechnic campus.
- (8) 2002 - 2006: Taskforce on Accreditation, College of Technology and Applied Sciences.

Membership on aviation program committees

- (1) 2008 - present: Undergraduate Curriculum Committee

- (2) 2008 - present: E-Learning Committee
- (3) 2008 - present: Recruitment and Promotional Resources Committee
- (4) 2005 – 2008: Personnel Committee. Aeronautical Management Technology Department.
- (5) 2003 – 2004: Academic Evaluation/Scholarship Committee. Aeronautical Management Technology Department.
- (6) 2003 – Present: Student Advisory Counsel. Aviation Program.
- (7) 2002 – Present: Undergraduate Curriculum Committee. Aviation Program.
- (8) 2002 – 2008: Strategic Planning & Policy. Aeronautical Management Technology Department.
- (9) 2002 – 2008: Marketing/Retention Committee. Aeronautical Management Technology Department.
- (10) 2002 – 2008: Electronic Media & Textbook Committee. Aeronautical Management Technology Department.

Student Service

Undergraduate

Student advisement

Fall 2009 – Spring 2010:	120
Fall 2008 – Spring 2009:	99
Fall 2007 – Spring 2008:	56
Fall 2006 – Spring 2007	63
Fall 2005 - Spring 2006:	53
Fall 2004 - Spring 2005:	29
Fall 2003 - Spring 2004:	21
Fall 2002 - Spring 2003	41

Faculty sponsor to student organizations

- 2003 – present: Women In Aviation International (WAI)
- 2002 – 2003: American Association of Airport Executives (AAAE)

International Exchange program administrator

Manage aviation management exchange program with the European Business School, Germany

Graduate

Head of Aviation Management and Human Factors Graduate degree program

Committee membership

Futoshi Nakagawa, Masters Thesis – *The Effect of Communication During Work Group Transition on Aircraft Maintenance Performance*

Estimated completion, December 2011 (Chair)

Landon Mays, Masters Thesis - *Challenges, Circumstances, and Considerations for Bird Abatement and the Importance of Empirical and Historical Data at Arizona Airports.*

Estimated completion, Fall 2011 (Chair)

Matt McCoy, Masters Thesis – *Comparison of Airport Airside Safety Measures in the United States and Europe.*

Estimated completion, Spring 2012 (Chair)

Ryan Furlong, Masters Thesis - *A GIS Solution for Airport Security at Denver International Airport.*

Completed, Spring 2010 (Chair)

Jake Troutman, Masters Thesis – *The Use of UAV to Monitor the Alaskan Oil Pipeline.*

Completed, Spring 2010 (Chair)

Jagannath Baskaradoss, Masters Thesis – *A Comparative Analysis of US and European Commercial Aircraft Noise Policies and Procedures.*

Completed, Spring 2010 (Chair)

Anthony Mekhail, Masters Thesis – *A Validation Study to Determine the Effectiveness of A Perceptual Speed Test in Predicting Aviation Flight Training Performance*

Completed, Fall 2009 (Chair)

Manesh Verma, Masters. Completed, Fall 2009

Brent Crow, Masters. Completed, Spring 2009 (Chair)

Christina Stender, Masters. Completed, Spring 2008 (Chair)

Matthew Smith, Masters. Completed, Fall 2007 (Chair)

Scott Smith, Masters. Completed, Fall 2006

James Duggan, Masters. Completed, Spring 2006 (Chair)

Omar Zuluaga, Masters. Completed, Spring 2005 (Chair)

Lucian Hornsby, Masters. Completed, Spring 2005

Patricia Fitzgerald, Masters. Completed, Spring 2004

Vince Mitchell, Masters. Completed, Spring 2004

Marla McGatlin, Masters. Completed December 2003 (Co-Chair)

Polytechnic Student Success Center

Work with staff to develop tutoring program for ASU Aviation students.

Course Development

AMT 330 – Managing Financial Resources in Aviation

AMT 520 – Airline Pricing and Yield Management

ASU 101 – The ASU Experience

Work with Dean Hjelmstad to lead a task-force on the modification of ASU 101 for the College of Technology and Innovation

Community Service

Instructor for the Aviation Series, ASU Osher Lifelong Learning Institute

2005 - current

HONORS AND SCHOLARSHIPS

Nominee for ASU Award of Excellence for Researcher of the Year, 2006

ASU College of Education, Division of Psychology in Education Graduate Teaching Award, 2002

Nominee for the ASU Faculty Women's Association Distinguished Achievement Award for a Doctoral Degree Candidate, 2002

Graduate Academic Scholarship, 2001 - 2002

Preparing Future Faculty Scholarship, 2000 – 2001

PROFESSIONAL AFFILIATIONS

2001 – Present: Association for Educational Communications and Technology

2002 – Present: University Aviation Association

2002 – Present: Women in Aviation International