

CURRICULUM VITAE

Jill Whittall, PhD

Professor, Department of Physical Therapy and Rehabilitation Science
University of Maryland School of Medicine

DATE (9/30/07)

100 Penn Street
University of Maryland
Baltimore, MD 21201

Phone: 410 706-0764

Fax: 410 706-6387

Email: jwhittall@som.umaryland.edu

EDUCATION:

- | | |
|------|---|
| 1973 | Alsager College of Education, Cheshire, England, Major Areas: Physical Education, Biology, Education, C.Ed., 1973 |
| 1974 | University of Keele, Staffordshire, England, Major areas: Physical Education, Education, BEd, 1974. |
| 1982 | University of London Institute of Education, England, Area: Comparative Education. MA, 1982 |
| 1988 | University of Maryland College Park, Major area: Motor Development, Minor area: Motor Control/Learning; Support area: Human Development, PhD, 1988. |

Dissertation: A developmental study of interlimb coordination in running and galloping. Dissertation Abstracts International, 49, 2149-A. Feb. 1989.

CERTIFICATIONS

- | | |
|------|---|
| 1974 | Licensed Teacher, Department of Education and Science, # 70/49969, UK |
|------|---|

EMPLOYMENT HISTORY

1974-1983	Teacher, Cheam High School, Surrey, England
1978-1979	British-American Exchange Teacher, York High School, York, PA
1983-1987	Teaching Assistant, University of Maryland, College Park
1985-1987	Teacher (part-time) St. Mark's Elementary School, MD
1988	Visiting Instructor, University of Wisconsin, Madison,
1988 - 1990	Visiting Assistant Professor, University of Wisconsin, Madison
1990 - 1994	Assistant Professor, University of Wisconsin, Madison
1994 - 1996	Assistant Professor, University of Maryland School of Medicine (UMSOM)
1996 - 2003	Associate Professor, (tenured) UMSOM
2003 – present	Professor, (tenured) UMSOM
1995 – present	Graduate Faculty Member, University of Maryland, College Park
2001 – 2001	Visiting Senior Scientist, University of Birmingham, UK (sabbatical)
2001 – present	Veterans Administration Volunteer Faculty
2001 – present	Gerontology Program Faculty Member, UMSOM
2002 - present	Neuroscience Program Faculty Member, UMSOM

PROFESSIONAL SOCIETY MEMBERSHIPS:

Current

North American Society for the Psychology of Sport and Physical Activity (NASPSPA)
 International Society for Motor Control
 International Society for Neurorehabilitation
 American Physical Therapy Association (Associate member)

HONORS AND AWARDS:

1974	BEd with Second Class Honours, Keele University
1978	Exchange Teacher, US/UK Teacher Exchange Program
1982	MA with Distinction, London University, Institute of Education
1985	Student representative at the NATO Advanced Study Institute on Motor Skill Development, Maastricht, The Netherlands (National Science Foundation)
1992	University of Wisconsin Department of Kinesiology Teaching Excellence Award

ADMINISTRATIVE SERVICE

Institutional Service

Department Level
 UM, College Park

1986 - 1987	Undergraduate Studies Committee
UW-Madison	
1988 - 1993	Undergraduate Program Committee, Chair (1992-93)
1988 - 1992	T.A. Review Committee
1988 - 1992	Nominating Committee
1989 - 1992	Human Subjects Committee (Chair, 1990)
1992 - 1993	Undergraduate Financial Aid Committee
	Participation on at least 6 Ad Hoc committees
Departmental, UMSOM	
1994 - 1996	Chair of Admissions Committee
1995 - present	Research Committee (Chair 2003-6)
1996 - 1999	Chair of Educational Affairs Committee and member of Advisory Committee
1997 - present	Appointments, Promotion, Tenure Committee (Chair 1997 – 2005)
1998 - 1999	Strategic Planning Committee
1999 - 2001	Practice Board of Directors
1999 – 2005, 2007 (Co)	Director of PhD Program
2000 - present	Mentor Coordinator
2002 (6 mo)	Acting Department Chair
2004 – 2006, 2007 (Co)	Director of Research
2005 – present	Search Committee for Research Scholar, Chair
	Participation on 16 Ad Hoc committees including Chair of 3 Search committees and participation in strategic planning in 2006-7.

School/University Level

UW-Madison	
1988 - 1990	Ethnic Studies Committee
1988 - 1993	Human Relations Representative
1989 - 1993	Coordinating Council of Teacher Education
1990 - 1991	Summer Forum Organizing Committee
School of Medicine, UMSOM	
1998 - 2001	School of Medicine Council (elected member)
1999 - 2006	Doctoral Program Director Committee
2000 - present	Faculty Mentoring Committee
2001 - 2006	Contributor to Graduate Writing Class
2002, 2004	Reviewer at Intercampus Graduate Research Day
2002,3, 5 & 7	Evaluator of Graduate Student Presentations at Graduate Student Research Day
2006 - present	Appointments, Promotion, Tenure Committee

2007 Faculty Grievance Committee

Local and National Service

Local/Community Service

1984 - 1996	Over 15 In-Service/Workshops
1997	In-Service on Current Theories of Motor Behavior (Faculty practice)
1999	In-Service on Pediatric PT (State-wide)
2000	In-Service on Stroke Rehabilitation (State-wide)
2001	In-Service on Children with DCD (Baltimore County Public Schools PT)
2004	In-Service on Evidence-Based Practice in PT (Regional)
2005	In-Service on Children with DCD (State Pediatric PT/OT)

National Committees

1990 - 1991	American Alliance for Health Physical Education Recreation and Dance (AAHPERD) Motor Development Academy Nominating Committee
1990 - 1992	AAHPERD Research Consortium Conference Evaluation Committee
1990 - 1994, 1997 1991	AAHPERD Research Consortium Abstract Review Panel Society for Research in Child Development Biological and Physical Processes Abstract Review Panel
1992, 1996, 2004	North American Society for Psychology of Sport and Physical Activity (NASPSPA) Motor Development Program Committee
1993	AAHPERD Delegate Assembly, NASPE representative
1993 - 1994	Member of Task Force on Developmental Teaching, AAHPERD.
1998	Member of Task Force on Physical Activity, National Center for Education in Maternal and Child Health.
2006	VA Brain Rehabilitation Center, Gainesville. Upper extremity translational research conference and workgroup.

Conference Organizer

1996	Motor Development Research Consortium
1999 - 2000	Program Chair, NASPSPA Motor Development
2005 – 2006	Program Chair, NASPSPA Motor Development
2007	Motor Development Research Consortium

Elected Office

2000-2	Secretary/Treasurer of North American Society for the Psychology of Sport and Physical Activity (NASPSPA)
--------	---

2007-8

President Elect of NASPSPA

Grant Reviews

1995, 1997, 1998, 2001	National Science Foundation
1999, 2001, 2004, 2005	National Institutes of Health, Special/Ad Hoc SS
2001, 2006	The Health Research Council of New Zealand
2002	Michael Smith Foundation for Health Research, Canada
2002, 2005	Neurological Foundation of New Zealand
2006	VA Merit Review
2006	VA Pre-Doc Review
2006	REAP Review
2006	National Institutes of Health, Ad Hoc SMCR SS
2006	National Institute of Disability & Rehabilitation Research
2006	Thrasher Institute

Editorial Board

*Journal of Motor Behavior**

Journal Reviewer

* 2007

Acta Psychologica
Age and Ageing
Archives of Physical Medicine and Rehabilitation
*Brain**
Child Development
Clinical Rehabilitation
*Clinical Neurophysiology**
Developmental Psychobiology
Developmental Psychology
Experimental Brain Research
Journal of Mathematical Biology
Motor Control
*Neurorehabilitation and Neural Repair**
*Neuroscience Letters**
Pediatric Physical Therapy
*Research Quarterly for Exercise and Sport**
Stroke

TEACHING RESPONSIBILITIES AND EXPERIENCE

1988-93

Past Undergraduate Instruction (University of Wisconsin Department of Kinesiology)

Introduction to Motor Development
Elementary Physical Education for Boys and Girls
The Content of Elementary Physical Education

Elementary Physical Education: A Movement Approach
Methods in Physical Education
Supervision of Practicum and Teaching Practice students

Past Graduate Instruction (University of Wisconsin Department of Kinesiology)

Motor Development over the Lifespan
Seminar in Motor Development: Developmental Motor Learning

Past Graduate Research Mentoring:

Primary Advisor for 2 Ph.D. candidates and 3 MS candidates. Of these students, 2 were passed on to other Professors (co-advised) when I left and 1 dropped out. The remaining 2 are noted below.

Member of Committee for 8 completed Dissertations (and Comprehensives), of whom five I mentored extensively in a secondary capacity.

Member of Committee for 6 completed Theses, of whom four I mentored extensively in a co- or secondary capacity.

1994 - present

UMSOM Master of Physical Therapy (MPT)

PTAB 412 - Human Growth and Development (3 credits) 1994-1999 Lecture/Labs
PTAB 504 - Research Methods (3 credits) 1995-1997 Lecture/Library
PTAB 599 – Research Methods 1 (1 credit) 1998 Lecture
PTAB 599 – Research Methods 2 (2 credits) 2002 Lecture/Library
PTAB 510 - Teaching Methods 1 (1 credit) 1995, 1995-2000 Lecture/Labs
PTAB 588 - Developmental Motor Learning (2 credits) 1995, 1999, 2000 Seminar
PTAB 599 – Research (6 credits) 1994-1999 Coordinator

UMSOM Doctor of Physical Therapy (DPT)

DPTE 512 – Professional Issues 1 30 hours 2002, 2003 Lecture/Lab
DPTE 513 – Professional Issues 2 5 hours, 2003, 2004 Lecture/Lab
DPTE 515 - Basic Science 2 26 hours, 2004, 2005, 2006, 2007 Lecture/Lab
DPTE 515 - Block Leader, 2005, 2006, 2007 (Co)
DPTE 514 – Basic Science 3 60 hours, 2003, 25-30 hours 2004, 2005, 2006 Lecture/Lab

DPTE 514- Block Leader, 2003
DPTE 714- Neuromuscular 1 6 hours, 2003, 2004, 2005, 2006 Seminar
DPTE 715- Neuromuscular 2 6 hours, 2004, 2005, 2006, 2007 Seminar

UMSOM Physical Rehabilitation Sciences (PhD)

PTRS 712 - Motor Behavior (2 credits) 1998, 1999, 2003, 2004 Seminar
PTRS 788 – Research Seminar (1 credit) F1999, S2000, F2000, F2001, F2002
PTRS 713- NeuroScience (2 credits) 2003
PTRS 710 - Graduate Seminar in Teaching, 2004, 2005, 2007

Graduate Research Mentoring:

Advisor and Dissertation (Ph.D.) Chairperson

Getchell, N. (1996). Transitions in locomotion: A mathematical model of interlimb coordination. University of Wisconsin-Madison.

McCombe Waller, S.(2004) Central Motor Control Mechanisms Associated with Hand Dominance and Their Adaptability to Unilateral and Bilateral Training

Harris-Love, M. (2005) Immediate adaptations to changing constraints in chronic stroke patients.

Current at UMSOM

Liu, W. (Comps Committee Chair, 2005, 2006)

Viswanathan, P. (Comps Committee Chair, 2005)

Vanapelli, R. (Comps Committee Chair, 2006)

Ph.D. Member of Comprehensive and/or Dissertation Committees

8 students at UW Madison before 1994

4 additional students at UMSOM (2002; 2003, 2007)

4 students at UMCP (1997, 2004, 2005, 2006)

1 student at Universiteit Antwerpen (2000)

1 student at Universiteit Gent (2006)

MS. Advisor and Thesis Chairperson

Koutelidas, A. (2002). Contextual interference effects in locomotor skills of children and adults: Delimitation of the effect. University of Wisconsin-Madison.

Member of Comprehensive Committee and Thesis (MS) Committee

6 students at UW Madison before 1995

2 students at UMCP (1997; 1999)

GRANT SUPPORT:

Active

- 2006 –2011 Neuromotor Core
Co-Core Leader (10%)
Hanley, D.(Co-Leader)
Rep. Claude D. Pepper Older Americans Independence Center
Principal Investigator, Goldberg, A.
National Institute on Aging
Current Direct Cost of Center:\$828,000 Total Direct Costs: \$4,140,000
Total Cost: \$6,080,000
- 2006 – 2008 Bilateral vs. unilateral arm training in chronic stroke
Principal Investigator (9%)
Villagra, F., McCombe Waller, S., Hanley, D., Luft, A., Macko, R.; Sorkin J. (Co-
Investigators)
National Center for Neuromuscular Rehabilitation Research
Current Direct Cost: \$112,500 Total Direct Costs: \$206,250
Total Cost: \$305,250
- 2006 – 2009 Evaluation of robotic upper extremity neuro-rehabilitation
Co-Investigator (5%)
Principal Investigator, Bever, C.T
Veterans Affairs Merit Award
Current Direct Cost: \$6,334 Total Direct Costs: \$19,002
- 2005 – 2006 Task-specific modification in cortical activation after BATRAC training.
Co-Investigator (2%)
Principal Investigator: Luft, A.
VA REAP Pilot Study
Total Costs: \$20,000
- 2005 – 2010 Task-oriented exercise and robotics in neurological disease
Co-Investigator (2.5%)
Co- Principal Investigators: Macko, R.F./Bever, C.T.
VA RR & D Center of Excellence
Current Direct Cost: \$3,000 Total Direct Costs: \$15,000
- 2002 – 2007 Sensorimotor adaptation in children with DCD
Sub-Contract and Co-Investigator (10%)
Principal Investigator: Clark, J.E.
National Institute for Child and Human Development RO1 HD42527
Current Direct Cost: \$32,128 Total Direct Costs: \$192,638
Total Cost: \$286,068

2003 - 2008 Advanced Rehabilitation Research Training Program
Co-Investigator
Principal Investigator: Rodgers, M.M.
National Center for Neuromuscular Rehabilitation Research
Current Direct Cost: \$97,649 Total Direct Costs: \$713,837
Total Cost: \$758,762

Past Grant Support

2001 – 2004 Bilateral arm training in patients with chronic hemiparesis
Principal Investigator
McCombe Waller, S.; Hanley, D.; Silver, K.; McQuade, K; Smith, G.V.; Macko, R.; Luft, A. (Co-Investigators)
National Institute of Disability and Rehabilitation Research H133G010111
Current Direct Cost: \$100,053 Total Direct Costs: \$301,226
Total Cost: \$447,321
TWO YEAR NO COST EXTENSION

2001 – 2005 Bilateral arm training in patients with chronic stroke
Project Leader of Intervention Development Study
McCombe Waller, S; Hanley, D.; Silver, K., McQuade, K. (co-Investigators)
Rep. Claude D. Pepper Older Americans Independence Center
Principal Investigator, Goldberg, A.
National Institute on Aging P6012583
Current Direct Cost: \$86,851 Total Direct Costs: \$315,076
Total Cost: \$503,675
ONE YEAR NO COST EXTENSION

2004-2005 Does side of stroke affect central motor control mechanisms in response to short-term unilateral versus bilateral training?
Co-Investigator
Principal Investigator: McCombe Waller, S.
Claude D. Pepper Older Americans Independence Center Research and Development Core Pilot Grant
Total Costs: \$20,000

2003-2004 Interlimb interactions in non-disabled and individuals with stroke
Co-Investigator
Principal Investigator, McQuade, K.; Harris-Love, M.
University of Maryland, School of Medicine Intramural Grant Competition
Total Cost: \$15,000

2001– 2004 Evaluation of robotic upper extremity neuro-rehabilitation
Co-Investigator

Principal Investigator, Bever, C.
Veterans Affairs Merit Award
Current Direct Cost: \$25,089 Total Direct Costs: \$75,267

- 2002 – 2003 Multilimb coordination in typically developing children
Consultant
Principal Investigator, Getchell, N.
University of Delaware Research Foundation
Current Direct Cost: \$1000
- 2000 – 2003 Perception-action coupling in children with developmental coordination disorder.
Principal Investigator
Clark, J.E., Wachtel, R., & McMenamin, S. (co-Investigators)
NIH R03HD38337
Current Direct Cost: 0 (no cost ext) Total Direct Costs: \$100,000
Total Costs: \$148,500
- 1998 – 2000 The effects of bilateral upper extremity training on hemiplegia following stroke.
Principal Investigator
Waller, S., Macko, R., & Silver, K. (co-Investigators)
Rep. Claude D. Pepper Older Americans Independence Center Research and
Development Core Pilot
Total Cost: \$17,000
- 1992 - 1997 Interlimb coordination: Development across childhood
Principal Investigator
NIH First Award (NICHD) R29 HD28157-05
Total Cost: \$437,341
- 1990 Development of interlimb coordination: From running to galloping
Principal Investigator
Wisconsin Alumni Research Foundation Award
Total Cost: \$6,922
- 1989 Development of interlimb coordination: From running to galloping
Principal Investigator
Wisconsin Alumni Research Foundation Award
Total Cost: \$17,299
- 1988 Coordination of motoric and cognitive skills
Principal Investigator
Biomedical Research Support Grant
Total Cost: \$5,700

PATENT:

2006 Patent issued for BATRAC (Rehabilitation machine for Stroke) in US.

PUBLICATIONS:

Peer-reviewed Journal Articles

1. **Whitall, J.** (1988) The development of visually directed reaching: From description to explanation. Advances in Motor Development Research 2, 143-163.
2. Clark, J.E., **Whitall, J.**, & Phillips, S.J. (1988) Human interlimb coordination and control: The first 6 months of independent walking. Developmental Psychobiology 21, 445-456.
3. Clark, J.E., & **Whitall, J.** (1989) What is motor development: The lessons of history. Quest 41, 183-202.
4. **Whitall, J.** (1989) A developmental study of the interlimb coordination in running and galloping. Journal of Motor Behavior 21, 409-428.
5. Lanphear, A.L., **Whitall, J.**, Overby, L., Clark, J.E., & Tyler, R.T. (1991) Comparison of four types of feedback on the golf putting task performance of novice adults. Journal of Human Movement Studies 21, 201-215.
6. **Whitall, J.** (1991) The developmental effect of concurrent cognitive and locomotor skills: Time-sharing from a dynamic perspective. Journal of Experimental Child Psychology 51, 245-266.
7. **Whitall, J.**, & Caldwell, G.E. (1992) Coordination of symmetrical and asymmetrical gait. Journal of Motor Behavior 24, 339-354.
8. **Whitall, J.**, Block, M.E., & Clark, J.E. (1992) The development of walking: Interlimb coordination as coupled limit cycle systems. Posture and Gait 2, 315-318.
9. Caldwell, G.E., & **Whitall, J.** (1995) A mechanical energy analysis of symmetrical and asymmetrical gait. Journal of Motor Behavior 27, 139-154.
10. **Whitall, J.**, & Getchell, N. (1995) From walking to running; using a dynamical systems approach on the development of locomotor skills. Child Development 67, 1541 - 1553.
11. Lazarus, J.C., **Whitall, J.**, & Franks, C.A. (1995) Age difference in isometric force regulation. Journal of Experimental Child Psychology 60, 245-260.

12. **Whitall, J.** & Getchell, N. (1996) Multilimb coordination patterns in simultaneous dissimilar upper and lower limb tasks. Human Movement Science 15, 129-155.
13. **Whitall, J.** (1996) On the interaction of concurrent verbal and manual skills; Which initial task conditions produce interference? Research Quarterly for Exercise and Sport.
14. **Whitall, J.** (1997) The development of time-sharing: An old paradigm from a new perspective. Motor Development: Research & Reviews 1, 171-199.
15. **Whitall, J.**, Getchell, N, & Forrester, L.W. (1997) The effect of non-specific task constraints on quadrupedal locomotion: I Interlimb coordination. Motor Control 1, 138-160.
16. Forrester, L.W. & **Whitall, J.** (1997) The effect of non-specific task constraints on quadrupedal locomotion: II Joint Kinematics. Motor Control 1, 208-228.
17. **Whitall, J.**, Forrester, L.W., & Song, S. (1999) Dual-finger preferred-speed tapping: Effects of coordination mode and anatomical finger/limb pairings. Journal of Motor Behavior 31, 325-339.
18. Lazarus, J.C., & **Whitall, J.** (1999) Motor overflow and children's tracking performance: Is there a link? Developmental Psychobiology 35, 178-187.
19. Forrester, L.W., & **Whitall, J.** (2000) Bimanual finger tapping: Effects of frequency and auditory information on timing consistency. Journal of Motor Behavior 32, 176-191.
20. Harbst, K.B., Lazarus, J.C., & **Whitall, J.** (2000) Accuracy of dynamic isometric force production: The influence of age and bimanual activation patterns. Motor Control 4, 232-256.
21. Barela, J., **Whitall, J.**, Black, P., & Clark, J.E. (2000) An examination of constraints in patients with chronic hemiparetic gait. Human Movement Science 19, 251-273.
22. **Whitall, J.**, McCombe Waller, S., Silver, K.C. & Macko, R.F. (2000) Repetitive bilateral arm training with rhythmic auditory cueing improves motor function in chronic hemiparetic stroke. Stroke 31, 2390-2395.
23. Getchell, N., Forrester, L.W., & **Whitall, J.** (2001) Individual differences and similarities in the stability, timing consistency and natural frequency of rhythmic coordinated actions. Research Quarterly for Sport and Exercise 72, 13-21.
24. Barela, J.A., Black, P., **Whitall, J.**, Getchell, N., & Clark, J. (2002). Hemiplegic intralimb coordination: A dynamical systems analysis. Brazilian Journal of

Biomechanics 4, 5-14.

25. Luft AR, Smith GV, Forrester L, **Whitall J**, Macko RF, Hauser TK, Goldberg AP, Hanley DF. (2002) Comparing brain activation associated with isolated upper and lower limb movement across corresponding joints. Human Brain Mapping 17, 131-40.
26. Getchell, N. & **Whitall, J.** (2003). How do children coordinate simultaneous upper and lower extremity tasks? The development of dual motor task coordination Journal of Experimental Child Psychology. 85(2):120-40
27. Getchell, N. & **Whitall, J.** (2004). Transitions to and from asymmetrical gait patterns. Journal of Motor Behavior 36, 13-27.
28. Luft AR, McCombe Waller S, Forrester L, Smith GV, **Whitall J**, Macko RF, Goldberg AP, Hanley DF (2004) Lesion location alters brain activation in chronically impaired stroke survivors. Neuroimage 21, 924-35.
29. McCombe Waller, S, & **Whitall, J.** (2004) Fine motor function in adults with chronic hemiparesis: Baseline comparison to non-disabled adults and effects of bilateral arm training. Archives of Rehabilitation and Physical Medicine 85, 1076-83.
30. **Whitall, J.** (2004) Stroke Rehabilitation Research: Time to Answer More Specific Questions?" Neurorehabilitation and Neural Repair,18, 3-8.
31. Luft AR, McCombe Waller S, **Whitall J**, Forrester LW, Macko RF, Sorkin JD, Schulz MD Goldberg AP, Hanley D (2004) Repetitive bilateral arm training and motor cortex activation in chronic stroke Journal of American Medical Association. 292,1853-61.
32. Harris-Love, M, Macko, RF, **Whitall, J.**, Forrester, L. (2004) Improved Hemiparetic Muscle Activation in Treadmill Versus Overground Walking. Neurorehabilitation and Neural Repair18, 154-60.
33. Getchell, N., McMenamin, S., **Whitall, J.** (2005). Dual motor task coordination in children with and without learning disabilities. Adapted Physical Activity Quarterly, 22, 21-38.
34. McCombe Waller, S, & **Whitall, J.** (2005) Hand Dominance and Side of Stroke Affect Rehabilitation in Chronic Stroke. Clinical Rehabilitation.19, 544-51.
35. Macclellan LR, Bradham, DD, **Whitall, J**, Volpe B, Wilson PD, Ohlhoff, J, Meister C, Hogan, N, Krebs HI, Bever, CT Jr. (2005) Robotic upper-limb neurorehabilitation in chronic stroke patients. Journal of Rehabilitation Research

and Development.42, 717-22.

36. Luft, A., Forrester, L., Macko, R.F., McCombe Waller, S., **Whitall, J.**, Villagra, F., Hanley, D. (2005). Brain activation of lower extremity movement in chronically impaired stroke survivors. Neuroimage.26, 184-94
37. Harris-Love, ML., McCombe Waller, S., Liu, W. & **Whitall, J.** (2005) Exploiting interlimb coupling to improve paretic arm reaching performance in people with chronic stroke. Archives of Physical Medicine and Rehabilitation. 86, 2131-7.
38. Finley, MA, Fasoli, SE, DiPietro, L, Ohlhoff, MacClellan, L, Meister,C, **Whitall, J**, Macko, R, Bever, CT, Krebs, HI, Hogan, N .(2005) Short Duration Upper Extremity Robotic Therapy in Stroke Patients with Severe Upper Extremity Motor Impairment, Journal of Rehabilitation Research and Development. 42, 683-92.
39. Waller, SM., Harris-Love, M., Liu, W., **Whitall, J.** (2006). Temporal coordination of the arms during bilateral simultaneous and sequential movements in patients with chronic hemiparesis. Experimental Brain Research, 168, 450-4.
40. Liu, W, Forrester, LW, & **Whitall, J.**, (2006). A Note on Time-frequency Analysis of Finger Tapping. Journal of Motor Behavior, 38, 18-28
41. **Whitall, J.**, Savin, D.N., Harris-Love, M., McCombe Waller, S. (2006). Psychometric properties of a modified Wolf Motor Function test for people with mild and moderate upper-extremity hemiparesis. Archives of Physical Medicine and Rehabilitation.87, 656-60.
42. **Whitall, J.**, McCombe Waller, S., Luft, A., Hanley, D. (2006). Motor function improvement is associated with brain re-organization after bilateral arm training in chronic stroke – Case report. Physioscience, 2, 93-98.
43. **Whitall, J.**, Getchell, N., McMenamin, S., Horn, C., Wilms-Floet, A., Clark, J.E. (2006). Perception-action coupling in children with and without DCD: Frequency locking between task-relevant auditory signals and motor responses in a dual-motor task. Child Care, Health and Development, 32, 679-92 .
44. Resnick, B., Shaughnessy, M., Macko, R., **Whitall, J.**, Michael, KM, Nahm E.S., Kopunek, S. & Orwig, D. (2007). Testing of the short self-efficacy and outcome expectation for exercises scales. International Journal of Therapy and Rehabilitation 14(3), 16-22.

45. Kopunek, S, Michael, KM, Shaughnessy, M, Resnick, B, Nahm ES, **Whitall, J**, Goldberg A, & Macko, RF. (2007). Cardiovascular Risk in Survivors of Stroke: What Screening Reveals. *American Journal of Preventive Medicine*. 32, 408-12.

Technical Report (Peer-reviewed)

1. **Whitall, J.** (2004) Possible causes of delay in the acquisition of six motor milestones and interventions to stimulate their development. A review. Prepared for the World Health Organization, Geneva, Switzerland.

Professional Publications (Peer-reviewed)

1. Williams, K., Barrett, K., Clark, J.E., French, K., Langendorfer, S., & **Whitall, J.** (1995). *Looking at physical education from a developmental perspective: A guide for teaching*. Reston, VA: NASPE.
2. Clark, J.E., Getchell, N., Smiley-Oyen, A.L. & **Whitall, J.** (2005). Developmental Coordination Disorder: Issues, identification and intervention. *Journal of Physical Education, Recreation & Dance*. 76, 49-53.

Journal Articles (Non peer-reviewed)

1. **Whitall, J.** (1980) Teaching physical education in the United States. *British Journal of Physical Education*, 54, 45
2. **Whitall, J.** (1992) Elementary school physical fitness. *Teaching Elementary Physical Education*, 3, 14-15.
3. Barrett, K.R., Williams, K., & **Whitall, J.** (1992) What does it mean to have a "Developmentally appropriate physical education program"? *Physical Educator*, 49, 114-118.

Book Chapters (invited and/or peer-reviewed)

1. **Whitall, J.** & Kisabeth, K. (1987) Weaving a priority curriculum for elementary physical education. Proceedings of 5th Biannual Curriculum Theory Conference, March.
2. Clark, J.E., & **Whitall, J.** (1989) Changing patterns of locomotion: From walking to skipping. In M.H. Woollacott & A. Shumway-Cook (Eds.), Development of posture and gait across the life span pp. 128-151. Columbia, SC: University of South Carolina Press.

3. **Whitall, J., & Clark, J.E.,** (1994) The development of bipedal interlimb coordination, in S.P.Swinnen, H. Heuer, J. Massion & P. Casaer (Eds.), Interlimb coordination: Neural, dynamical and cognitive constraints pp. 391-411), San Diego, CA: Academic Press.
4. **Whitall, J.** (1995) The evolution of research on motor development: New approaches bringing new insights. Exercise and Sports Sciences Reviews, 23, 243-273.
5. **Whitall, J.** (2001) Physical Activity in Early Childhood. In B. Spear & K. Patrick (Eds.) Bright Futures in Practice: Physical Activity, Arlington, VA: National Center for Education in Maternal and Child Health.
6. Clark, J.E. & **Whitall, J.** (2001) Children with Developmental Coordination Disorder. In B. Spear & K. Patrick (Eds.) Bright Futures in Practice: Physical Activity, Arlington, VA: National Center for Education in Maternal and Child Health.
7. **Whitall, J. & McCombe Waller, S.** (2001) Bilateral arm training based on motor control/learning principles improves motor control and function in patients with chronic hemiparetic stroke. In N. Gantchev (Ed.) From Basic Motor Control to Functional Recovery II. (pp.435-444), Sofia, Bulgaria: Drinov Academic Publishing House.
8. McCombe Waller, S. & **Whitall, J.** (2002) Hand dominance and side of stroke affect rehabilitation in chronic stroke. In L. Battistin, M. Dam, & P. Tonin (Eds.) Neurological Rehabilitation (pp. 235-240), Italy: Monduzzi Editore S.p.A. – Medimond.
9. **Whitall, J.** (2003). Development of Locomotor Co-ordination and Control in Children. In G.J.P. Savelsbergh, K. Davids, J. Van der Kamp, & S. Bennett (Eds.), Development of movement coordination in children: Applications in the field of ergonomicsm health sciences and sport, (pp. 251 – 270). London: Routledge.
10. Winstein, C., Wing, A.M., & **Whitall, J.** (2003) Motor control and learning principles for rehabilitation of upper limb movements after brain injury. In J. Grafman (Ed.) Handbook of Neuropsychology, Vol 9, (pp.75-137). Amsterdam: Elsevier Press.
11. **Whitall, J.,** (2007) Theoretical and methodological approaches to studying motor development in V.G. Payne (Ed) Introduction to Motor Development. Peoples Educational Press: Beijing, China (Published in Chinese)
12. Whitall, J, Sanghvi, S., & Getchell, N. (2007) Perception-action judgments in children with learning disabilities. In W.E. Davis & G.D. Broadhead (Eds) Ecological Task Analysis and Movement. Human Kinetics: Champaign, IL.

Book Reviews

1. Haywood, K. (1995) Lifespan Motor Development. Champaign, IL: Human Kinetics.
In: Medicine, Exercise, Nutrition and Health.

MAJOR INVITED SPEECHES

1. Whitall, J. (1988, December). " A dynamical systems approach to motor development: Applying new theory to practice". Early Childhood Conference co-sponsored by American Alliance for Health, Physical Education, Recreation and Dance and the National Association for the Education of Young Children, Washington, D.C.
2. Whitall, J. (1990, June). "The development of running and galloping: A dynamical systems approach". Department of Developmental Psychology, Indiana University, Bloomington, IN.
3. Whitall, J. (1992, March). "The coordination of cognitive and motoric skills". Department of Exercise and Movement Science, University of Oregon, Eugene, OR.
4. Whitall, J. (1992, November). "A dynamical systems approach to time-sharing". Department of Psychology, University of Wisconsin, Madison, WI.
5. Whitall, J. (1997, November). "Development of dual-task locomotion: Clapping with walking/galloping". Department of Kinesiology, University of Texas, Austin, TX.
6. Whitall, J. (1998, June). "Symmetry, asymmetry, bifurcations and intention in human locomotion". Institute for Mathematics and its Applications Program on Emerging Applications of Dynamical Systems, University of Minnesota, Minneapolis, MN.
7. Whitall, J. (2000, February) "Motor learning and stroke rehabilitation" Colloquium in Department of Kinesiology, Penn State University, University Park, PA.
8. Whitall, J. (2000, February) "Natural frequency tapping in children and adults" Department of Kinesiology, Penn State University, University Park, PA.
9. Whitall, J. (2000, December) "On theories and evidence regarding the development of motor coordination and control". Keynote speaker at the 5th Symposium for (Flemish) Kinesiology, Antwerp, Belgium.
10. Whitall, J. (2001, May) "A dynamic approach to understanding motor coordination in

adults, children and patients with chronic hemiparetic stroke”, Department of Psychology, University of Birmingham, UK.

11. Whitall, J. (2002, Sept) “Current and future state of the art in motor control research” Panel presentation at the 3rd Motor Behavior Conference, Gramado, Brazil
12. Whitall, J. (2002, Sept) “Applications and integration of motor behavior principles to rehabilitation” Keynote speaker at the 3rd Motor Behavior Conference, Gramado, Brazil.
13. Whitall, J. (2003, Sept) “Imaging evidence of neuroplasticity after chronic stroke rehabilitation”. VA MS Center of Excellence Inaugural Symposium, Baltimore, MD.
14. Whitall, J. (2004, March) “ Interdisciplinary investigation of motor development and dysfunction” The Ruth Baldwin Lecture in Pediatrics/Grand Rounds Neurology at UMB, Baltimore, MD.
15. Whitall, J. (2005, Jan) “Novel arm rehabilitation in stroke patients is associated with neuroplasticity and improved UMSOM Medical Grand Rounds, UMB, Baltimore, MD.
16. Whitall, J. (2005, April) “Imaging evidence of neuroplasticity after chronic stroke rehabilitation”. Department of Kinesiology, University of Wisconsin, Madison, WI.
17. Whitall, J. (2005, May) “Using Transcranial Magnetic Stimulation to assess underlying mechanisms after bilateral arm training in patients with mild/moderate chronic stroke. At biannual conference “Imaging Recovery from Stroke”, Hamburg, Germany.
18. Whitall, J., (2006, April) “ Interventions in stroke rehabilitation: Should they be based on motor learning or motor development?” Center for the Ecological Study of Perception and Action, Department of Psychology, University of Connecticut, Storrs, CT.
19. Whitall, J., (2006, Oct) “Motor Sequences in UE Stroke Rehabilitation” Motor Learning and Neurorehabilitation in Stroke Symposium, Tubingen, Germany.
20. Whitall, J. (2006, Oct) “Bilateral arm training with rhythmic auditory cueing in chronic stroke” Modern Physical Therapy Post-Stroke Symposium, Tubingen, Germany.

Abstracts/Proffered Communications

1. Clark, J.E., Phillips, S.J., & **Whitall, J.** (1984, July). The development of interlimb

coordination in upright locomotion. Paper presented at the 1984 Olympic Scientific Congress, Eugene, OR.

2. **Whitall, J.,** Clark, J.E., & Phillips, S.J. (1985, May) Interaction of postural and oscillatory mechanisms in the development of interlimb coordination of upright bipedal walking. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Gulfport, MS.
3. **Whitall, J.,** & Clark, J.E. (1986, June) The interlimb coordination of galloping: Theoretical predictions and data. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Scottsdale, AZ
4. **Whitall, J.,** & Kisabeth, K. (1987, March) Curriculum priorities for elementary physical education. Paper presented at the 5th Curriculum Theory Conference in Physical Education, Athens, GA.
5. Clark, J.E., **Whitall, J.,** & Phillips, S.J. (1987 April) Changing patterns of interlimb coordination. Paper presented at the biannual meeting of the Society for Research on Child Development, Baltimore, MD.
6. **Whitall, J.** (1988, June) A developmental comparison of interlimb coordination in running and galloping. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Knoxville, TN.
7. **Whitall, J.** (1989, March) The dynamical systems perspective on motor behavior: Implications for the construction and teaching of a priority elementary curriculum. Paper presented at the 6th Curriculum Theory Conference in Physical Education, Athens, GA.
8. **Whitall, J.** (1989, April) Cognitive interference on locomotor skills across age: A dynamical systems perspective. Paper presented at the biannual meeting of the Society for Research on Child Development, Kansas City, KS.
9. **Whitall, J.,** & Caldwell, G.E. (1989, June) The coordination patterns of symmetrical and asymmetrical gait. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Kent, OH.
10. **Whitall, J.,** & Clark, J.E. (1989, July) A developmental study of the problem of coordinating cognitive and motoric tasks simultaneously. Paper presented at the biannual meeting of the International Society for the Study of Behavioral Development. Jyvaskyla, FIN.
11. Block, M.E., **Whitall, J.,** Wilson, C., & Clark, J.E. (1990 March) Stability of interlimb

coordination in the first six months of walking. Paper presented at the annual meeting of the American Association for Health, Physical Education, Recreation and Dance, New Orleans, LA.

12. **Whitall, J.** (1990, May) Interlimb coordination in running and galloping Paper presented in a Symposium (Organizer) at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Houston, TX.
13. **Whitall, J.** (1991, April) Concurrent cognitive and motoric skill interaction. Paper presented at the annual meeting of the American Association for Health, Physical Education, Recreation and Dance, San Francisco, CA.
14. **Whitall, J.** and Robertson, M.A. (1991, June) Transitions in Development: Theoretical issues. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Asilimar, CA.
15. **Whitall, J.** and Getchell, N. (1991, June) A comparison of walking and running in toddlers. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Asilimar, CA.
16. Lazarus, J.C., **Whitall, J.**, & Franks, C.A. (1992, June) Age differences in isometric force regulation. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Pittsburgh, PA.
17. Black, P.O., Getchell, N., **Whitall, J.**, Anderson, D.G. & Rodriguez, A.A. (1992, Nov.). Changes in kinematic variables following gait training in chronic hemiplegic patients. Paper presented at the 54th Annual Assembly of the American Academy of Physical Medicine and Rehabilitation, San Francisco, CA.
18. Black, P.O., Clark, J.E., **Whitall, J.** & Getchell, N. (1993, May). The use of phase plane portraits in the analysis of hemiplegic gait. Paper presented at the 8th Annual East Coast Clinical Gait Laboratory Conference, Rochester, MN.
19. Getchell, N., Black, P.O. & **Whitall, J.** (1993, May). Ground reaction force analysis of hemiplegic gait. Paper presented at the 8th Annual East Coast Clinical Gait Laboratory Conference, Rochester, MN.
20. Getchell, N. & **Whitall, J.** (1994, June) Multilimb coordination: Clapping while walking/galloping. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Clearwater, Florida.
21. **Whitall, J.** & Song, S. (1994, June) Interlimb coordination in preferred speed tapping. Paper presented at the annual meeting of the North American Society for the

22. **Whitall, J.**, Forrester, L., Getchell, N., & Clark, J.E. (1994, June). Transitions in locomotor coordination: The emergence of running. Paper presented at the biennial meeting of the International Society for the Study of Behavioral Development, Amsterdam, The Netherlands.
23. Brody, R., Schneider, M. and **Whitall, J.** (1995, April) Effects of pre-natal alcohol and/or mild psychological stress on the development of gait quality in Rhesus monkey infants. Paper presented at the biennial meeting of the Society for Research on Motor Development, Indianapolis, IN.
24. Barela, J.A., Li, T., Black, P., **Whitall, J.**, Getchell, N., and Clark, J.E. (1995, June). Interlimb coordination in hemiplegic gait. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Asilomar, CA.
25. **Whitall, J.**, Forrester, L.W., and Getchell, N. (1995 June). On the monkey crawl and crab walk: Changing task constraints while maintaining the same goal. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Asilomar, CA.
26. Fay, D., Lazarus, J., **Whitall, J.**, Loitz-Ramage, B. & Kosorak, M. (1996, June) The development of pelvic and trunk rotation during the first four months of independent walking. Paper presented at the annual meeting of the American Physical Therapy Association,
27. Barela, J.A., Black, P., **Whitall, J.**, Getchell, N., & Clark, J.E. (1996, June). Walking under mechanical and speed constraints: Can we produce a hemiplegic-like gait? Paper presented at the Joint Conference of the North American Society for the Psychology of Sport and Physical Activity and the Canadian Society for Psychomotor Learning and Sport Psychology, Ontario, Canada.
28. Getchell, N., & **Whitall, J.** (1996, June). Transitions in gait: An analysis of the walk, run and gallop using a dynamical systems perspective. Paper presented at the Joint Conference of the North American Society for the Psychology of Sport and Physical Activity and the Canadian Society for Psychomotor Learning and Sport Psychology, Ontario, Canada.
29. Harbst, K., Lazarus, J.C., & **Whitall, J.** (1996, June). Age differences in bimanual isometric force production. Paper presented at the Joint Conference of the North American Society for the Psychology of Sport and Physical Activity and the Canadian Society for Psychomotor Learning and Sport Psychology, Ontario, Canada.

30. Lazarus, J.C., & **Whitall, J.** (1997, May). Motor overflow and children's tracking performance: Is there a link? Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Denver, CO.
31. Getchell, N., & **Whitall, J.** (1997, May). Transitions in gait as a function of physical parameters. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Denver, CO.
32. **Whitall, J.** (1997, June). A dynamical systems analysis of hemiplegia and cerebral palsy. Paper presented in a Symposium at the annual meeting of the American Physical Therapy Association, San Diego, CA.
33. **Whitall, J.**, Forrester, L.W., Kelsey, C. & Getchell, N. (1997, June). Development of dual-task locomotion: Clapping with walking/galloping. Paper presented as the 13th International Symposium-Multisegmental Control of Posture and Gait, Paris, France.
34. Thohan, S., & **Whitall, J.** (1998, February). Perception-action characteristics in children with learning disabilities. Paper presented at the American Physical Therapy Association Combined Sections Meeting, Boston, MA.
35. Getchell, N., Forrester, L.W, & **Whitall, J.** (1999, June). Individual differences in the stability, timing consistency and natural frequency of coordinated action. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Clearwater, FL.
36. Forrester, L.W., & **Whitall, J.** (1999, August). Dual-finger tapping: Effects of frequency and external auditory signals on timing and coordination. Paper presented at the Progress in Motor Control – II conference, State College, PA.
37. **Whitall, J.**, & Spezzano, C. (1999, September). What's new in pediatric physical therapy? Paper presented at the annual meeting of the American Academy for Cerebral Palsy and Developmental Medicine, Washington DC.
38. McCombe Waller, S., Macko, R., & **Whitall, J.** (2000, February). Bilateral training of the upper extremity in patients with chronic stroke. Paper presented at the annual meeting of the American Physical Therapy Association Combined Sections, New Orleans, LA.
39. **Whitall, J.**, McCombe Waller, S., Gordes, K., Kelsey, C., Montgomery, C., & Silver, K. (2000, February). Locomotor training with and without rhythmic auditory stimulation in patients with chronic stroke. Paper presented at the annual meeting of the American Physical Therapy Association Combined Sections, New Orleans,

LA.

41. **Whitall, J.**, (2000, March). Motor Development and Running. Paper presented at a pre-convention workshop “Running with the Academies: Interdisciplinary Applications for Sport and PE” at the annual conference of the American Alliance of Health, Physical Education, Recreation and Dance, Orlando, FL.
42. **Whitall, J.** (2000, October). Bilateral Arm Training with Rhythmic Auditory Cueing as a Rehabilitation Program for Patients with Chronic UE Hemiparesis. Paper presented at a pre-convention workshop “Dynamic systems theory: Implications for research and intervention” at the annual conference of the American Congress of Rehabilitation, Hilton Head, SC.
43. **Whitall, J.**, & McCombe Waller (2000, November). Bilateral arm training in patients with chronic hemiparetic stroke. Paper presented in a symposium at the annual meeting of the Gerontological Society, Washington DC.
44. McCombe Waller, S. & **Whitall, J.** (2001, June). Comparison of Fine Motor Interlimb Coordination and Rhythmical timing in Adults with and without chronic Hemiparesis, Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, St, Louis, MO. Published in Journal of Sport & Exercise Psychology 23, S85-86.
45. McCombe Waller, S., Luft, A., Smith, G.V., Forrester, L.W., Hanley, D. & **Whitall, J.** (2001, August). Integrative assessment of neuroplasticity after repetitive bilateral upper extremity training for chronic stroke: A case study. Paper presented at the 3rd International Symposium of Progress in Motor Control: From Basic Science to Application, Montreal, Canada.
46. **Whitall, J.**, & McCombe Waller, S. (2001, September). Bilateral arm training based on motor control/learning principles improves arm function in chronic hemiparetic stroke. Paper presented at the Biannual International Conference of Motor Control: From basic motor control to function recovery, Varna, Bulgaria.
47. **Whitall, J.** & McCombe Waller, S. (2002, April) The relationship between residual upper extremity strength and motor performance in chronic stroke. Paper presented at the 3rd World Congress for Neurological Rehabilitation, Venice, Italy.
48. McCombe Waller, S. & **Whitall, J.** (2002, April) Hand dominance and side of stroke affect rehabilitation in chronic stroke. Paper presented at the 3rd World Congress for Neurological Rehabilitation, Venice, Italy.
49. Jung Potter, J. , Kim, S., Metcalfe, J., Horn, C. Wilms Floet, A., McMEnamin, S.,

- Whitall, J., & Clark, J.** (2002, May). Somatosensory-motor coupling in children with developmental coordination disorder. Paper presented at the Biennial International Conference on Children with DCD, Banff, Canada
50. **Whitall, J.,** Horn, C.L., Metcalfe, J., Jung-Potter, J., Kim, S., McMenamin, S., Wilms Floet, A., & Clark, J. (2002, May). Auditory-motor coupling in 6-8 year-old children with developmental coordination disorder. Paper presented at the Biennial International Conference on Children with DCD, Banff, Canada.
51. Getchell, N., & **Whitall, J.** (2002, June) The development of multilimb coordination: effects of age and task complexity. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, St, Louis, MO. Published in Journal of Sport & Exercise Psychology .
52. **Whitall, J.** (2002, June) Self-organizing and programming conceptions of timing: A rapprochement. Symposium preface & Organizer. Participants: Saltzman, E., Wing, A. & Sternad, D. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, St, Louis, MO. Published in Journal of Sport & Exercise Psychology
53. **Whitall, J.** (June, 2002) Kinesiological contributions to stroke rehabilitation. Symposium preface & Organizer. Participants: Page, S., Forrester, L., McCombe Waller, S., & Winstein, C. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, St, Louis, MO. Published in Journal of Sport & Exercise Psychology
54. McCombe Waller, S.A., & **Whitall, J.** (May, 2003). The effect of bilateral rhythmic arm training on motor coordination and function in patients with moderate severity chronic stroke. Paper presented at the Annual American Geriatrics Society Conference, Baltimore MD.
55. Getchell, N. & **Whitall, J.** (June, 2003) Multilimb coordination in children with learning disabilities. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, GA. Published in Journal of Sport & Exercise Psychology, 25, S8.
56. Clark, J.E., & **Whitall, J.** (June, 2003) Perception-Action Coupling in Children with Developmental Coordination Disorder. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, GA. Published in Journal of Sport & Exercise Psychology, 25, S9.
57. Harris-Love, M, McCombe Waller, S., Liu, W & **Whitall J.** (June, 2003). Ability to alter reaching speed in different coordination patterns after stroke. Paper presented at the annual meeting of the North American Society for the

Psychology of Sport and Physical Activity, Savannah, GA. Published in Journal of Sport & Exercise Psychology, 25, S66

58. McCombe Waller, S., Harris-Love, M, Liu, W. & **Whitall, J.** (June, 2003). Immediate coupling effects during bilateral functional reaching in patients with chronic hemiparetic stroke. Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, GA. Published in Journal of Sport & Exercise Psychology, 25, S97
59. **Whitall, J.** Contreras Vidal, J, Kagerer, F., Clark, J.E. (March, 2004) Perception-action characteristics of children with Developmental Coordination Disorder. In symposium “ Motor behavior problems in neurodevelopmental disabilities: Theory, modeling, and evidence-based intervention. Paper presented at the biennial meeting of the Gatlinburg Conference on Children with Disabilities, San Diego, CA.
60. Harris-Love, M, McCombe Waller, & **Whitall J.** (March, 2004). Coordination of unilateral and bilateral reaching movements in patients with chronic hemiparesis. Paper presented at the Motor Learning and Plasticity Satellite meeting at the Society for the Neural Control of Movement Conference, Barcelona, Spain.
61. McCombe Waller, S., & **Whitall, J.** (March, 2004) Cortical inhibition and facilitation in unilateral versus bilateral tasks and adaptability to training nondisabled. Paper presented at the Motor Learning and Plasticity Satellite meeting at the Society for the Neural Control of Movement Conference, Barcelona, Spain.
62. Liu W, Forrester L, **Whitall J.** (June, 2004) Demonstration of time-frequency analysis methods for finger tapping (June, 2004). Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Vancouver, Canada. Published in Journal of Sport & Exercise Psychology, 26, S125
63. **Whitall, J.** (June, 2004). Development and learning: A useful distinction with a common approach. Paper presented in a symposium Contemporary Perspectives on Learning, Maturation, and Development at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Savannah, GA. Published in Journal of Sport & Exercise Psychology, 26, S8
64. **Whitall, J.** (July, 2004). Educational Session Organizer, Moderator, Presenter. Does focused bilateral arm training enhance recovery of upper limb hemiparesis? Theory and Evidence. Participants: Harris-Love, M., McCombe Waller, S., Rose, D. & Winstein, C. Presented at the annual meeting of the American Physical Therapy Association, Chicago, IL.

65. **Whitall, J.** (July, 2004). Are children with Developmental Coordination Disorder qualitatively different in perceptual-motor development? Paper presented in a symposium at the biennial meeting of the International Society for the Study of Behavioural Development. Ghent, Belgium.
66. **Whitall, J.** McCombe Waller, S., Harris-Love, M., Luft, A., Hanley, D.(Sept, 2004). Repetitive Bilateral Upper Extremity Training for Patients with Chronic Hemiparesis: Theory and Practice. Paper presented in a symposium at the joint annual conference of the American Congress of Rehabilitation/American Society of Neural Rehabilitation, Ponta Verde, FL.
67. Bair, W-N, Jeka, J., **Whitall, J.**, & Clark, J.E. (2005, May). Stance spatial-temporal characteristics under sensory conditions in children with Developmental Coordination Disorder. Paper presented at the 6th International Conference on Developmental Coordination Disorder, Trieste, Italy.
68. Chen, L-C., Jeka, J.J., **Whitall, J.**, Clark, J.E. (2005, May). The influence of somatosensory information on postural control in children with DCD. Paper presented at the 6th International Conference on Developmental Coordination Disorder, Trieste, Italy.
69. De Oliveira, M.A., Loss, J.F., **Whitall, J.**, Clark, J.E., & Petersen, R.D. (2005, May). Force control in children with DCD. Paper presented at the 6th International Conference on Developmental Coordination Disorder, Trieste, Italy.
70. Getchell, N., Clark, J.E., Horn, C., Pabreja, P., & **Whitall, J.** (2005, May). Perception-action coupling in children with DCD: Frequency locking between task relevant auditory signals and motor responses in a dual motor task. Paper presented at the 6th International Conference on Developmental Coordination Disorder, Trieste, Italy
71. De Oliveira, M.A, Loss, J. F., **Whitall, J.**, Clark, J.E. & Petersen, R.D.(2005, June). Age differences performance in isometric force control in children with and without DCD Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, St. Pete's Beach, FL Published in Journal of Sport & Exercise Psychology, 27, S355
72. **Whitall, J.**, Savin, D., Harris-Love, M. & McCombe Waller, S. (2006, February). Psychometric Properties of a Modified Wolf Motor Function Test for Persons with Mild and Moderate Upper Extremity Hemiparesis. Paper presented at the 5th World Congress for Neurological Rehabilitation, Hong Kong.
73. Chen, L-C., Bair, W-N., Jung-Potter, J., Jeka, J.J., **Whitall, J.**, & Clark, J.E (2006, May). Postural response to an oscillating somatosensory drive in children with DCD.

Paper presented at the annual meeting of the North American Society for the Psychology of Sport and Physical Activity, Denver, CO. Published in Journal of Sport and Exercise Psychology, 28, S48.

74. MacKenzie, S.J., Clark, J.E., Getchell, N., & **Whitall, J.** (2007, February). Gross motor coordination in DCD under varying sensory availability conditions. Paper presented at the 7th International Conference on Children with Developmental Coordination Disorder, Melbourne, Australia.
75. **Whitall, J.**, McCombe Waller, S., Liu, W., & Change, T-Z. (2007, February). Changing motor control and coordination in persons with chronic stroke. Paper presented at the 8th Motor Control and Human Skill Conference, Freemantle, Australia..