

# VITA: Kenneth Tobin (Revised June 1, 2006)

**Home Address:**

36 South Shore Drive  
South Amboy, NJ 08879

**Professional:**

Presidential Professor  
The Graduate Center of City  
University of New York  
New York, NY 10016-4309

**Communication:**

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**EMPLOYMENT HISTORY**

<i>Year</i>	<i>Position</i>	<i>Rank</i>
<b>2003 - present</b>	The Graduate Center, City University of New York	Presidential Professor
<b>1997-2003</b>	University of Pennsylvania Professor, Education 1997 - 2003 Director, Teacher Education 1997-2000 Honorary Adjunct Professor 2003 -	Professor
<b>1987-97</b>	Florida State University Head, Dept C&I, 1989-91 Coordinator Science Education, 1987-93, 95 Director, Institute of Educational Advancement, 1995-97	Professor
<b>1998-1984-86</b>	Honorary Adjunct Professor, Curtin University, Australia	Senior Lecturer
<b>1975-83</b>	Western Australian Institute of Technology	Lecturer
<b>1974</b>	Western Australian College of Advanced Education	Lecturer
<b>1972</b>	Graylands College of Advanced Education	Curriculum Officer
<b>1971</b>	Education Department of Western Australia	Science teacher
<b>1966-70, 73</b>	Richard Challoner School (England)	Science teacher
<b>1964-65</b>	Applecross Senior High School (Western Australia)	Science teacher
	Northampton Junior High School (Western Australia)	Science teacher

**EDUCATION**

<i>Institution</i>	<i>Date</i>	<i>Major</i>	<i>Degree</i>
<b>University of Georgia</b>	1978-80	Science Education	Ed.D
<b>Western Australian Institute of Technology</b>	1966-70	Physics	B.App.Sc
	1972-74	Physics	Grad Dip Physics
	1975-77	Physics	M. App. Sc.
	1972-74	Educational Administration	Grad. Dip. Administration.
<b>Murdoch University</b>	1976-77	Educational Measurement	B.Ed.
<b>Graylands Teachers College</b>	1962-63	Primary Education Teachers Certificate	T.C 4
<b>Western Australian Education Department</b>	1974	The Teachers Higher Certificate	
<b>University of Pennsylvania</b>	1997		Honorary Master of Arts

FAAAS (Fellow of American Association for the Advancement of Science), 1999– present.

## AWARDS

- (1). Outstanding paper award, 1980. Awarded by the National Association for Research in Science Teaching, New York, 1981. Title: *Using science achievement to validate student teacher competencies*.
- (2). Outstanding paper award, 1980. Awarded by the American Association for the Education of Teachers of Science, New York, 1981. The award was for a synthesis of research findings with implications for teaching and learning science. Title: *Wait-time and learning in science*.
- (3). Practical application of research for the classroom teacher. Awarded by the National Association for Research in Science Teaching, New Orleans, 1984. Title: *Discourse patterns associated with the use of extended wait time in whole class settings*.
- (4). Outstanding paper award, 1985. Awarded by the American Association for the Education of Teachers of Science, Cincinnati, 1985. The award was for a synthesis of research findings with implications for teaching and learning science. Title: *Using research to improve science teaching*.
- (5). Fulbright Award: Senior Scholar category, 1985. The scholarship was awarded for a research and teaching program at the University of Georgia during 1985/1986.
- (6). Outstanding paper award, 1986. Awarded by the American Association for the Education of Teachers of Science, San Francisco, 1985. The award was for a synthesis of research findings with implications for teaching and learning science. Title: Tobin, K.G., Capie, W. & Bettencourt, A. *Active teaching for higher cognitive learning in science*.
- (7). Practical application of research for the classroom teacher. Awarded by the National Association for Research in Science Teaching, San Francisco, 1986. Title: Chandran, S., Treagust, D.F., & Tobin, K.G. *The role of cognitive factors in chemistry achievement*.
- (8). Award of merit for a paper published in Science Education in 1987/88. The paper was co-authored with Patrick Garnett. Title: *Exemplary practice in science classrooms*.
- (9). The JRST Award for the outstanding paper published in the Journal of research in Science Teaching in 1987/88.  
Title: Tobin, K. & Gallagher, J.J. (1987). The role of target students in the science classroom. Journal of Research in Science Teaching, 24(1), 61-75.
- (10). The Patron's Award for the Outstanding paper presented at the 1987 meeting of the National Association for Research in Science Teaching. The paper was presented at the annual meeting of NARST at Lake of the Ozarks, MO, April 1988. Title: Tobin, K. & Fraser, B. J. (April, 1987). *What does it mean to be an exemplary teacher?*
- (11). 1988 AERA Award for relating research to practice (Interpretive scholarship). The award was presented in New Orleans for the paper: Title: Tobin, K.G. (1987). The role of wait time in higher cognitive level learning. *Review of Educational Research*, 57(1), 69-95.
- (12). Outstanding paper award, 1988. Awarded by the American Association for the Education of Teachers of Science, St Louis, 1988. The award was for a synthesis of research findings with implications for teaching and learning science. Title: Tobin, K. & Fraser, B.J. *What can be learned from studies of exemplary practice?*
- (13). Cattell Early Career Award, 1989. Awarded by the American Educational Research Association, San Francisco, 1989.
- (14). Best paper award, 1989. Awarded by the Special Interest Group on the Study of Classroom Learning Environments, American Educational Research Association, San Francisco. Title: *Psychosocial environment of exemplary teachers' classrooms*.
- (15). Outstanding Position Paper award 1991, Awarded by the South Eastern Association for the Education of Teachers of Science, Stone Mountain, GA. Title: *Learning how to teach science*.
- (16). Outstanding paper describing an exemplary science teacher education program, 1991. Awarded by the Association for the Education of Teachers of Science. Title: *Enhancing science and mathematics teaching*.

Vita: Kenneth Tobin

- (17). Outstanding paper describing an exemplary science teacher education program, 1993. Awarded by the Association for the Education of Teachers of Science. Title: *Reconstructing science teacher education within communities of learners*.
- (18). Outstanding position paper award, 1995. Awarded by the Southeastern Association for the Education of Teachers of Science. [With Nancy Davis]. Title: *Learning to teach science equitably*.
- (19). John W. Shrum Award for excellence in the education of science teachers, 1995. Awarded by the Southeastern Association for the Education of Teachers of Science.
- (20). Research in Education, 1995. Awarded by the Florida State University chapter of Phi Delta Kappa.
- (21). David P. Butts Award for contributions to Science Education. January, 2000. Presented by the University of Georgia for outstanding accomplishments of alumni.
- (22). Choice award in the category of *Outstanding Academic Titles for 2002* (Roth, W-M., & Tobin, K. (2002). *At the elbows of another: Learning to teach through coteaching*. New York, NY: Peter Lang Publishing.
- (23). Selected by editors of *Educational Researcher* as an exemplary reviewer who has “exhibited outstanding professional service by providing exemplary reviews for the seven journals that AERA publishes each year.”
- (24). The 1987 article published with Jim Gallagher, The role of target students in the science classroom. *Journal of Research in Science Teaching*, 24, 61–76, was selected as 1 of the 13 most influential articles published in the *Journal of Research in Science Teaching*. Re-published 2003 in a special edition of *JRST*, edited by William Holliday.
- (25). Appointed to the Graduate Center of the City University of New York as Presidential Professor of Urban Education in September of 2003.
- (26). Recipient of 2004 AETS Award I: *Outstanding Science Teacher Educator of the Year (10+ years)*. Award was made at the annual meeting in Nashville, TN in January, 2004.
- (27). Recipient on June 1, 2004 of the National Science Foundation Director’s award for Distinguished Teaching Scholars.

#### **MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS:**

I am a member of six professional associations involved in: educational research; science teaching; and science teacher education.

- American Association for the Advancement of Science
- American Educational Research Association
- National Association for Research in Science Teaching
- National Science Teachers Association
- School Science and Mathematics Association
- Association for the Education of Teachers in Science

#### **GRANTS OBTAINED WHILE AT THE GRADUATE CENTER OF CUNY (2003- present)**

1. 2004-2008. *Use of Research to improve the Quality of Science Education in Urban High Schools* (DUE-0427570). Funded amount, \$304,963. National Science Foundation.
2. 2004-2005. *The MSP in NYC*. Kenneth Tobin was Director of the Evaluation. (ESI-0412413, PI, Pamela Mills). Evaluation funded at approx \$150,000 for the year in which I was involved. National Science Foundation. Note that I completed my role as an evaluator on December 2005 and began a longitudinal research program that explores the uses of cogenerative dialogue in New York City Public schools. The funding (direct costs) is approximately \$100,000 a year for four years.

#### **GRANTS OBTAINED WHILE AT THE UNIVERSITY OF PENNSYLVANIA (1997-2003)**

Vita: Kenneth Tobin

1. 1997-98. *Bridging the gap in science and mathematics*. Sub-contract from the University of Miami, Oxford, OH (\$15, 000) from REC-9602137 in which I was Co-PI with Jane Butler Kahle. National Science Foundation.
2. 1998-99. *Voices from the inside: A study of secondary teacher education*. Small research grant from the Spencer Foundation (\$34,795).
3. 1999-2004. *Teacher enhancement in chemistry: Creation of a master in chemical education program for secondary school teachers in Delaware, Maryland, New Jersey and Pennsylvania*. ESI-9911825; Co-PI \$618,727 (five year grant Co-PI with Hai-Lung Dai) National Science Foundation.
4. 1999-2002. *GK-12 Access Science: Tomorrow's scientists assisting in-service and pre-service teachers and their students*. (\$ 1,497,902, DUE-9979635 senior faculty associate with Dennis DeTurck as PI) National Science Foundation.
5. 2000-2001. *Learning to teach science in urban settings through coteaching*. Small research grant from the Spencer Foundation (\$35,000).
6. 2001-2005. *Teaching and learning of science in urban high schools* (REC-0107022). Funded amount, \$1,161,356. National Science Foundation.

• **1988- fall 1997**

**Grants obtained at FLORIDA STATE UNIVERSITY**

1. History and Philosophy of Science and the Teaching of Science.	NSF	2/15/89-1/31/91	\$88,699
2. Improving Science and Science Education Courses for Prospective Teachers.	NSF	8/7/91-7/31/94	\$782,483
3. Using Mentor Teachers to Enhance Science and Mathematics Teaching.	FL DOE	6/22/88-8/13/88	\$41,000
4. Implementing a Mentor Teacher Program.	FL DOE	7/1/88-12/31/89	\$35,100
5. Enhancing Elementary Science and Mathematics Learning: Teachers as researchers and mentors.	FL DOE	1/3/89-10/02/89	\$60,000
6. Enhancing Elementary and Middle School Learning in Science and Mathematics.	FL DOE	6/30/89-6/30/90	\$12,000
7. Enhancing Elementary and Middle School Learning in Science and Mathematics.	FL DOE	7/1/89-12/31/90	\$67,500
8. Implementing Florida's Comprehensive Plan for Mathematics, Science and Computer Education.	FL DOE	7/1/91-12/31/91	\$65,149
9. Review of Important Literature in Mathematics in Mathematics and Science Education: A proposal to prepare three Hot Topics.	FL DOE	2/12/91-6/30/91	\$15,000
10. An Evaluation Plan for the Implementation of Florida's Comprehensive Plan for Mathematics, Science, and Computer Education.	FL DOE	3/28/91-10/31/91	\$55,920
11. An Ongoing Evaluation of the Implementation of the	FL DOE	1/15/92-12/31/92	\$26,250

Comprehensive Plan for Improving Mathematics, Science and Computer Education.

12. An ongoing Evaluation of the Implementation of the Comprehensive Plan for Improving Mathematics, Science and Computer Education.	FL DOE	8/17/92-6/30/94	\$120,349
13. Enhancing Science & Mathematics Teaching & Learning Through Collaboration Among Post-Secondary Institutions.	FL DOE	9/27/93-4/30/95	\$79,972
14. An investigation of What's Happening in Florida's Schools with Respect to Teaching and Learning Science and Mathematics.	FL DOE	9/3/93-12/31/94	\$19,479
15. Higher Education Consortium for Science and Mathematics.	FL DOE	6/30/93-7/1/94	\$75,000
16. A Higher Education Consortium for Science and Mathematics.	FL DOE	2/1/94-5/1/95	\$91,980
17. Enhancing Science & Mathematics Teaching & Learning Through Collaboration Among Post-Secondary Institutions.	FL DOE	4/1/95-12/31/95	\$284,131
18. An Evaluation of a summer Program in Elementary Science and Mathematics for Mentor Teachers.	FL DOE	6/20/88-11/15/88	\$10,000
19. Development and Validation of a Survey to Assess Principal's Perceptions of the Quality of Elementary Teacher Preparation.	FL DOE	6/15/89-11/24/89	\$4,000
20. A Proposal to Investigate the Validity and Feasibility of Utilizing Concept Maps, Practical Tasks, and other Novel Assessment Tools.	UF	11/23/88-4/30/89	\$12,000
21. An Evaluation of the Development Research Schools in Florida.	UNF	12/1/90-12/31/90	\$250
22. Ethical conflict in teaching and learning: The dilemmas of practice	Humanities Center, Pilot Program Grants	1/1/93-12/31/93	\$1,027
23. Distance learning project.	FSU Council for Instruction	1/1/96-6/30/96	\$23,000
24. Advanced degrees in science and mathematics education for elementary and middle school teachers.	DCPS	5/96- 7/98	\$426,000
25. Seminar for science and mathematics supervisors and specialists in Dade County, Florida.	DCPS	6/96 - 12/96	\$8,900
26. Planning grant for an advanced	DCPS	9/96- 4/97	\$9,000

Vita: Kenneth Tobin

degree in Literacy Education.  
27. Bridging the Gap: Equity in  
Systemic Reform (REC-9602137  
Co-PI with Jane Butler Kahle)

NSF

9/96 - 9/98

\$1,170,156

## **SERVICE 1985-present**

### **Editorial**

2002-	International Journal of Science & Mathematics Education
2001-2003	Educational Researcher
2001-2003	Journal of Teacher Education
1997 - 2001	North American Editor, Learning Environment Research: An International Journal
1995 - 2001	Editorial Review Board, Journal of Science Teacher Education
1994-2000	Series Editor, Science and Technology Education Library, Kluwer Press.
1993-	Editorial Review Board, Research in Science Education
1987-	Editorial Review Board, Research in Science & Technological Education
1991-93	Series Editor, Research in Science and Mathematics Education, AAAS Press
1990-93	Editorial Review Board, American Education Research Journal
1988-92	North American Editor, International Journal of Science Education
1987-92	Editorial Review Board, Science Education (AETS) and manuscript reviewer.
1985-87	Member of the Editorial Board, Monograph Series of the Learning Environment SIG for the American Educational Research Association.
1985-89	Editorial Review Board, Journal of Research in Science Teaching.

Editor in Chief, with Wolff-Michael Roth, *Cultural Studies of Science Education*.

### **Committee Involvement**

2000-2003	Chair, Division Q (Education). American Association for the Advancement of Science
1995-99	NCATE Folio Review Board
1995-96	Chair, Membership affairs (NARST)
1994-95	Past President, National Association for Research in Science Teaching
	Chair, Elections Committee
	Chair, Policy Advisory Committee
	Chair, Exhibits Committee
	Chair, Committee for presenting research at meetings of other professional organizations
1993-94	President, National Association for Research in Science Teaching. (Ex-officio member of all committees)
1993	Program Chair, Annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.
1992-93	President-elect, National Association for Research in Science Teaching
1989- 92	Board member, National Association for Research in Science Teaching
1991-92	Co-Chair, Distinguished Contributions to Research Award, National Association for Research in Science Teaching
1989- 92	Chair, Publications Committee, National Association for Research in Science Teaching
1988-89	Member, Commissioner's Task Force on mathematics, science and computer education (State of Florida)
1987-89	Chair, Special Interest Group on Classroom Learning Environments, American Educational Research Association.
1987-89	Member, JRST Awards Committee of the National Association for Research in Science Teaching.
1986-87	Convener of the Secondary Judging Panel for the Science Talent Search, Science Teachers Association of Western Australia.
1986-89	Chair, AETS Committee, International Science Teacher Education
1985-89	Member, AETS Committee, International Science Teacher Education.

### **Consultancies**

- 2004 Research school, Mpekwani, South Africa (NSF/NRF).
- 1999-2003 Member of the National Visiting Committee for the NSF funded Teacher preparation collaborative at the University of Illinois at Chicago, PI: Maria Varelas.
- 1999-2001 Member of the National Visiting Committee for the NSF funded Teacher preparation collaborative at Florida A&M University, PI: Lynette Padmore.
- 1994-1998 Consultant to the NSF funded Statewide Systemic Initiative, Ohio, University of Miami/Ohio State University. Jane Butler Kahle, PI.
- 1993-1998 National Advisory Committee, Systemic Teacher Excellence Preparation, Montana State University.
- 1995-97 Consultant to the NSF funded project on gender equity, University of Delaware. Kate Scantlebury, PI.
- 1993-97 Consultant to NSF funded research on Assessment in the service of learning. Michigan State University. James Gallagher, PI.
- 1993-95 Consultant to the Private Universe project, Harvard-Smithsonian Astrophysics Laboratory.
- 1993-94 Consultant to the National group to develop a teacher education framework for Project 2061. Funded by the National Science Foundation.
- 1993, 95 Consultant to the Nebraska Statewide Systemic Initiative, funded by NSF.
- 1994-95 Research Director, Case Study Project, Harvard-Smithsonian Center for Astrophysics.
- 1992-93 National Taiwan Normal University to advise and collaborate on interpretive research.
- 1991-95 External evaluator, National Center for Research on Science Teaching and Learning
- 1991-94 University of Pittsburgh, NSF funded proposal on the use of portfolios to assess student science achievement.
- 1991 Keynote speaker, Center for Science and Engineering Education, University of Puerto Rico.
- 1991 Keynote speaker at the Networking Conference on Cluster Evaluation of Science Education in Michigan, W.K. Kellogg Foundation, November 4-5.
- 1989-90 National Science Center: High School Science Report
- 1989-93 Universidad Nacional in Costa Rica to enhance the quality of science education.
- 1989-90 Consultant to University of Northern Colorado on an NSF funded teacher enhancement project.
- 1988-89 Consultant to the Biological Sciences Curriculum Study.
- 1988-90 Consultant to Louisiana State University on the development of an assessment system for teaching interns and experienced teachers.
- 1988-89 Consultant to Stanford University on the development of an assessment system for experienced biology teachers.
- 1985-86 Consultant to the State of Texas on the implementation of a career ladder Teacher Assessment system.
- 1985-88 Research consultant to an NSF funded study on wait time awarded to Dr Nathan Swift at the University of New York (Oswego).

### **DISTINGUISHED APPOINTMENTS**

1. Visiting Professor, University of Georgia, Athens, Ga. August 1985 - September 1986.
2. Visiting Professor, Queensland University of Technology, Queensland, Australia. July - August, 1993.
3. Visiting Fellow, National Taiwan Normal University, Taipei, Taiwan, November - December, 1993.
4. Visiting Professor, Curtin University of Technology, Perth, Western Australia. January - April, 1994.
5. Visiting Research Fellow, Queensland University of Technology, Queensland, Australia. May-June, 1995.
6. Visiting scholar, CIRADE, Université du Québec à Montréal, Canada. April-May, 1996.
7. Lansdowne Professor, University of Victoria, Canada. February, 1999.
8. Visiting Scholar, National Institute of Education, Nanyang University, Singapore, May-June, 2004.

Vita: Kenneth Tobin

## **BOOKS PUBLISHED WHILE EDITOR OF THE SCIENCE AND TECHNOLOGY EDUCATION LIBRARY**

From 1991-93 I was founding Editor for a series of research publications in science and mathematics education: *Research in Science and Mathematics Education* published by AAAS Press. Three books were published in the series before AAAS decided to discontinue it. At that stage I negotiated with Kluwer and became founding editor of a similar series.

From 1994-2000 I was founding editor for the *Science and Technology Education Library*, which focused on research in science education and was published by Kluwer Academic Press, from the Netherlands. During my tenure as Series Editor 14 books were published.

Year	Author(s)	Title
1995	Roth, W-M.	Authentic school science: Knowing and learning in open-inquiry science laboratories.
1996	Parker, L.H., Rennie, L.J., & Fraser, B.J.	Gender, science and mathematics: Shortening the shadow.
1997	Roth, W-M.	Designing communities.
1998	Cobern, W.W. (Ed.)	Socio-cultural perspectives on science education: An international dialogue.
1998	McComas, W.F. (Ed.)	The nature of science in science education: Rationales and strategies.
1999	Gess-Newsome, J. & Lederman, N. (Eds).	Examining pedagogical content knowledge: The construct and its implications for science education.
2000	William Cobern	Everyday Thoughts on Nature
2000	Edgar Jenkins	International Comparisons of Pupil Performance in Science and Mathematics
2000	William Louden & John Wallace	Teachers' Learning: Stories of Science Education
2000	Fisher/Moody/Wandersee	Mapping Biology Knowledge
2001	Sandra Abell	Science Teacher Preparation
2001	Beverly Bell/Bronwen Cowie	Formative Assessment and Science Education
2001	Lavoie, D. & Roth, W-M. (Eds).	Models of science teacher preparation.
2002	Susan Stocklmayer, C. Bryant & M. M. Gore	Science Communication in Theory and Practice

I am co-editor, with Joe Kincheloe of a new book series, **Bold Visions in Educational Research –** Rotterdam, The Netherlands: Sense Publishers. The first three books in the series are now published, four are in press, and approximately 20 more are under contract.

Roth, W.-M. (Ed.). (2006). *Auto/biography and auto/ethnography: Praxis of research method*. Rotterdam: Sense Publishers.

Roth, W.-M. (Ed.). (2006). *Doing qualitative research: Praxis of method*. Rotterdam: Sense Publishers.

Kincheloe, J. L. & K. Hayes (2006). *Metropedagogy: Power, justice, and the urban classroom*. Rotterdam: Sense Publishing.

# PUBLICATIONS (1973-2006)

Since I completed my doctorate at the University of Georgia the total number of refereed publications over the 27-year period is 261 or an average of 10 per year, with the following breakdown into the above categories:

11 refereed books/monographs (about 1 every 2.5 years)  
77 refereed book chapters (approximately 3.0 per year)  
173 refereed articles in journals (approximately 6.7 per year)

## Citations

Using the citation index for the social sciences I checked to see how many times publications and presentations from a given year were cited in published sources. A total of 1508 citations have occurred (approximately 57 a year) with articles published in 1987, 1990 and 1993 being most often cited. These data source for this analysis is the Social Science Citation Index (ISI).

# 2006

## SUMMARY:

**Total: 34**  
**Books in preparation: 05**  
**Books: 02**  
**Foreword: 01**  
**Editorials: 03**  
**Submitted journal articles: 01**  
**Refereed Journals: 05**  
**Chapters: 08**  
**Papers International/National: 09**

## BOOKS IN PREPARATION

05. Tobin, K. *The teaching and learning of science: A primer*. New York, NY: Peter Lang.

04. Elmesky, R. & Tobin, K. (Contract accepted). *Collaborative educational research with urban students: An empowering experience*. Rotterdam, NL: Sense Publishing.

03. Roth, W-M., & Tobin, K. (Eds). (Contract accepted). *Science, learning, and identity: Sociocultural and cultural-historical perspectives*. Rotterdam, NL: Sense Publishing.

02. Tobin, K. & Roth, W-M. (Eds). (Contract accepted). *The culture of science education: Historical and biographical perspectives*. Rotterdam, NL: Sense Publishing.

01. Tobin, K. & Roth, W-M. (Contract accepted). *Teaching to learn: A view from the field*. Rotterdam, NL: Sense Publishing.

## BOOKS

02. Kincheloe, J. L. & Tobin, K. (in press). *Doing educational research: A handbook*. Rotterdam, NL: Sense Publishing.

01. Tobin, K. (Ed.). (in press). *Teaching and Learning Science: A Handbook*. New York, NY: Praeger Press.

## FOREWORD

01. Tobin, K. (2006). Foreword. In J. L. Kincheloe & K. Hayes, *Metropedagogy: Power, justice, and the urban classroom*. Amsterdam, Netherlands: Sense Publishing.

## EDITORIALS

03. Tobin, K. (2006). Building an infrastructure to support researchers in science education. *Cultural Studies of Science Education*, 3, xx-yy.

02. Tobin, K. (2006). Toward a cultural turn in science education. *Cultural Studies of Science Education*, 1, 7-10.

01. Roth, W-M, & Tobin, K. (2006). Announcing Cultural Studies of Science Education, *Cultural Studies of Science Education*, 1, 1-5.

## PAPERS SUBMITTED FOR PUBLICATION IN REFEREED JOURNALS

01. Roth, W-M. Tobin, K., & Ritchie, S. (submitted, October, 2005). Beyond common sense: Temporal issues and the organization of science in an urban high school. *American Educational Research Journal*.

## PAPERS PUBLISHED IN REFEREED JOURNALS

05. Ritchie, S., Tobin, K., Roth, W-M. & Carambo, C. (2007). Transforming an academy through the enactment of collective curriculum leadership. *Journal of Curriculum Studies*.

04. Yerrick, R., Roth, W-M., & Tobin, K. (in press). Forum: The cultures of schooling and the reproduction of inequity. *Cultural Studies of Science Education*.

03. Tobin, K. (in press). Aligning the cultures of teaching and learning science in urban high schools. *Cultural Studies of Science Education*.

02. Tobin, K. (in press). Learning to teach in diverse and dynamic classrooms. *Pedagogies: An international Journal*.

01. Tobin, K. (2006). Learning to teach through coteaching and cogenerative dialogue. *Teaching Education, 17*, 133-142.

## CHAPTERS

08. Tobin, K. (in press). Qualitative research in classrooms: Pushing the boundaries of theory and methodology. In J. L. Kincheloe, & K. Tobin, (Eds). *Doing educational research: A handbook*. Rotterdam, NL: Sense Publishing.

07. Tobin, K. (in press). Verbal and non-verbal interactions in science classrooms. In K.Tobin, (Ed.). *The handbook of science education*. New York, NY: Praeger Press.

06. Tobin, K. (in press). Analyses of current trends and practices in science education. In K.Tobin, (Ed.). *The handbook of science education*. New York, NY: Praeger Press.

05. Tobin, K. (in press). Issues of class in urban science education. In J. L. Kincheloe, *Cutting class*. NY: Rowman & Littlefield.

04. Tobin, K. (in press). Teaching for improved learning. In K. Borman, S. Cahill, & B. Cotner (Eds). *The American High School: An encyclopedia*. New York, NY: Greenwood Press.

03. Tobin, K. (in press). Crash or crash through: Part 2—Structures that inhibit learning. In J. L. Kincheloe and R. Horn (Eds). *Encyclopedia of Educational Psychology*. New York, NY: Greenwood Press.

02. Tobin, K. (in press). Crash or crash through: Part 1—Learning from enacted curricula. In J. L. Kincheloe and R. Horn (Eds). *Encyclopedia of Educational Psychology* New York, NY: Greenwood Press.

01. Tobin, K. (2006). Why do science teachers teach the way they do and how can they improve practice? In P. Aubusson, A. Harrison, & S. M.

Ritchie (Eds). *Metaphor and analogy in science education* (pp. 155-164). Dordrecht, The Netherlands: Springer.

## PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS

09. Tobin, K. (2006, April) *Collaborative models to afford learning and learning to teach*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

08. Tobin, K. (2006, April). *Creating communities of practice in urban science education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

07. Tobin, K. (2006, April). *Enacting coteaching in the professional development of urban high school teachers and college professors*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

06. Tobin, K. (2006, February). *Pushing the boundaries of theory and research methodology in ethnographies of learning to teach*. Paper presented at the 27th Annual Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

05. Tobin, K. (2006, February). *New teachers and resident teachers collaborating in coteaching and research on enacted science curricula*. Paper presented at the Taiwan Teacher Education Conference, Taipei, Taiwan.

04. Tobin, K. (2006, February). *Uses of cogenerative dialogue to create socially and culturally adaptive classrooms and distributed responsibility for teaching and learning*. Paper presented at the Taiwan Teacher Education Conference, Taipei, Taiwan.

03. Tobin, K. (2006, January). *Coteaching and cogenerative dialogues: dynamic pathways for innovative research and teaching strategies in science teacher education*. Workshop presented at the annual meeting of the Association of Science Teacher Education, Portland, OR.

02. Tobin, K. (2006, January). *Cogenerating improvements in the quality of urban science education*. Paper presented at the annual meeting of the Association of Science Teacher Education, Portland, OR.

01. Tobin, K. (2006, January). *Structuring success in science labs*. Paper presented at the annual Hawaii

International Conference on Education, Honolulu, HI.

# 2005

## SUMMARY:

**Total: 26**

**Books: 02**

**Foreword: 01**

**Refereed Journals: 04**

**Chapters: 09**

**Papers International/National: 08**

**Papers City Meetings: 02**

## BOOKS

02. Roth, W-M. & Tobin, K. (Eds). (2005). *Teaching together, learning together*. New York, NY: Peter Lang.

01. Tobin, K., Elmesky, R. & Seiler, G. (Eds). (2005). *Improving urban science education: New roles for teachers, students and researchers*. NY: Rowman & Littlefield.

## PAPERS PUBLISHED IN REFEREED JOURNAL

04. Tobin, K. & Roth, W-M. (2005). Implementing coteaching and cogenerative dialoguing in urban science education. *School Science and Mathematics, 105*, 313-322.

03. Elmesky, R., & Tobin, K. (2005). Expanding our understandings of urban science education by expanding the roles of students as researchers. *Journal of Research in Science Teaching, 42*, 807-828.

02. Tobin, K. (2005). Building enacted science curricula on the capital of learners. *Science Education, 89*, 577-594.

01. Roth, W-M. Tobin, K., Carambo, C. & Dalland, C. (2005). Producing alignment in coteaching. *Science Education, 89*, 675-702.

## FOREWORD

Tobin, K. (2005). Foreword. In P. J. Gilmer, D. E. Granger, & W. Butler. *Science graduate students in K-8 classrooms: Experiences and reflections* (p. vii-viii). Greensboro, NC: The SERVE Center at UNCG.

## CHAPTERS

09. Tobin, K. (2005). Becoming an urban science educator. In W-M Roth (Ed). *Auto/biography and auto/ethnography: Praxis of research method* (pp. 181-203). Rotterdam, The Netherlands: Sense Publishers.

08. Roth, W-M. & Tobin, K. (2005). Introduction. In W-M Roth and K. Tobin (Eds). *Teaching together, learning together* (pp. ix-xviii). New York, NY: Peter Lang.

07. Roth, W-M. & Tobin, K. (2005). Coteaching: from praxis to theory. In W-M Roth and K. Tobin (Eds). *Teaching together, learning together* (pp. 5-26). New York, NY: Peter Lang.

06. Tobin, K. (2005). Exchanging the baton: Exploring the co in coteaching. In W-M and Roth K. Tobin (Eds). *Teaching together, learning together* (pp. 141-161). New York, NY: Peter Lang.

05. Tobin, K, & Roth, W-M. (2005). Coteaching / cogenerative dialoguing in an urban science teacher preparation program. In W-M Roth and K. Tobin (Eds). *Teaching together, learning together* (pp. 59-77). New York, NY: Peter Lang.

04. Tobin, K, & Roth, W-M. (2005). Epilogue. In W-M Roth and K. Tobin (Eds). *Teaching together, learning together* (pp. 249-263). New York, NY: Peter Lang.

03. Tobin, K. (2005). Urban science as a culturally and socially adaptive practice. In K. Tobin, R. Elmesky, & G. Seiler (Eds). *Improving urban science education: New roles for teachers, students and researchers* (pp. 21-42). NY: Rowman & Littlefield.

02. Tobin, K. (2005). Transforming the future while learning from the past. In K. Tobin, R. Elmesky, & G. Seiler (Eds). *Improving urban science education: New roles for teachers, students and researchers* (pp. 299-319). NY: Rowman & Littlefield.

01. Tobin, K. (2005). Using technology in the classroom. In J. Kincheloe (Ed.), *Classroom teaching: An introduction* (pp. 147-164). New York, NY: Peter Lang.

## PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS

08. Tobin, K. (2005, September). *Using science education to expand the agency of urban youth*. Keynote address at the second annual symposium on *Optimizing Science Achievement for All Students*, University of Maryland Institute for Minority Achievement and Urban Education\_.

07. Tobin, K. (2005, June). *Learning to teach and learn in diverse and dynamic classrooms*. Keynote address at first international conference on Redesigning Pedagogy: Research, Policy, Practice, Singapore.

06. Tobin, K. (2005 April). *Exchanging the baton? Exploring the co in coteaching*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

05. Elmesky, R., Seiler, G., & Tobin, K. (2005, April). *There no stoppin us now: Student researchers, sociocultural theory and building understandings of structure and agency in urban science classrooms*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

04. Tobin, K. (2005, April). *Urban school and university partnerships: The challenges, successes, advantages, and their future*. Symposium presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

03. Tobin, K. (2005, April). *Improving science education through the uses of digital tools, coteaching, and cogenerative dialogues*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

02. Tobin, K. (2005, April). *Culturally adaptive teaching and learning of science in urban high schools*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas, TX.

01. Tobin, K. (2005, January). *Emotional energy as a barometer for culturally adaptive teaching and learning of science*. Paper presented at the annual meeting of the Association for Science Teacher Education, Colorado Springs, CO.

### **PAPERS PRESENTED AT NEW YORK CITY MEETINGS**

02. Tobin, K. (2005, November). *Improving urban science education for adolescent females*. Paper presented at a conference for Fostering Women's Success in Science, Queens College, New York City.

01. Tobin, K. (2005, November). *Aligning the cultures of teaching and learning science in urban high schools*. Keynote address to Physics for All, a conference for New York City physics teachers, Stuyvesant High School, New York, NY.

# 2004

## **SUMMARY:**

**Total: 13**

**Refereed Journals: 04**

**Chapters: 02**

**Papers International/National: 07**

## **PAPERS PUBLISHED IN REFEREED JOURNAL**

04. Roth, W-M. Tobin, K., Carambo, C. & Dalland, C. (2004). Coteaching: Creating resources for learning and learning to teach chemistry in urban high schools. *Journal of Research in Science Teaching*, 41, 882-904.

03. Roth, W-M. & Tobin, K. (2004, February). Cogenerative dialoguing and metaloguing: Reflexivity of processes and genres. [35 paragraphs]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* [On-line Journal], 5(3). Available at: <http://www.qualitative-research.net/fqs/fqs-eng.htm>.

02. Roth, W-M. & Tobin, K. (2004). Coteaching: From praxis to theory. *Teachers and Teaching: Theory and Practice*, 10(2), 161-180.

01. Roth, W-M. Tobin, K., Elmesky, R., Carambo, C., McKnight, Y. & Beers, J. (2004). Re/making identities in the praxis of urban schooling: A cultural historical perspective. *Mind, Culture and Activity*, 11, 48-69.

## **CHAPTERS**

02. Tobin, K. (2004). Teaching science in urban high schools: When the rubber hits the road. In R. Yerrick & W-M. Roth (eds). *Establishing scientific classroom discourse communities: Multiple voices of research on teaching and learning* (pp. 265-286). Mahwah, NJ: Lawrence Erlbaum Associates.

01. Tobin, K., Yerrick, R., & Roth W-M. (2004). Expanding Agency and Changing Social Structures. In R. Yerrick & W-M. Roth (eds). *Establishing scientific classroom discourse communities: Multiple voices of research on teaching and learning* (pp. 287-291). Mahwah, NJ: Lawrence Erlbaum Associates.

## **PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS**

07. Tobin, K., & Carambo, C. (2004, April). *Expanding the transformative potential of science education for inner city youth*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

06. Tobin, K. (2004, April). *Building on the capital of urban youth to create science fluency and communities of learners*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

05. Tobin, K. (2004, April). *Learning to teach and learning to learn through participation in coteaching and cogenerative dialogues*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, Canada.

04. Tobin, K. (2004, February). *Synchronizing the structure of science education in urban schools with the dispositions of teachers and learners*. Paper presented at the 25th Annual Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

03. Elmesky, R. & Tobin, K. (2004, January). "A brand new line of researchers": *Student researchers using sociocultural theory to understand urban science classrooms*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Nashville, TN.

02. Tobin, K. (2004, January). *Theoretical and empirical frameworks for coteaching and cogenerative dialogues*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Nashville, TN.

01. Tobin, K. (2004, January). *Earning the right to teach science in urban high schools*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Nashville, TN.

# 2003

## SUMMARY:

**Total: 13**

**Refereed Journals: 03**

**Chapters: 01**

**Papers International/National: 09**

## PAPERS PUBLISHED IN REFEREED JOURNAL

03. Tobin, K., Zurbano, R., Ford, A., & Carambo, C. (2003). Learning to teach through coteaching and cogenerative dialogue. *Cybernetics & Human Knowing* 10(2), 51-73.

02. Bleicher, R., Tobin, K., & McRobbie, C. (2003). Opportunities to talk science in a high school chemistry classroom. *Research in Science Education*, 33, 319-339.

01. Seiler, G., Tobin, K. & Sokolic, J. (2003). Reconstituting resistance in urban science education. *Journal of Research in Science Teaching*, 40. 101-103.

## CHAPTER

01. Tobin, K. (2003). Teaching science in urban high schools. In J. Wallace, & J. Loughran, *Leadership and professional development in science education: New possibilities for enhancing teacher learning* (pp. 34-47). London: RoutledgeFalmer Publishers.

## PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS

09. Scantlebury, K., Tobin, K. & Milne, C. (September, 2003). *Target students: Catalysts or inhibitors to the teaching and learning of chemistry in a master's of chemistry education program*. Paper presented at 226th ACS National Meeting New York, NY.

08. Scantlebury, K & Tobin, K. (April, 2003). *Target Students: Catalysts or inhibitors to the teaching and learning of chemistry in a masters of chemistry education program*. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.

07. Scantlebury, K. & Tobin, K. (2003, April). *Just another day: The impact of urban African-American girls' lifeworlds on their struggles and survival in high school science*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

06. Tobin, K. (2003, March). *The agency-structure dialectic in urban high school science classrooms*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

05. Tobin, K., Carambo, C., Tracy, C., Abraham, A., & Elmesky, R. (2003, March). *Theoretical and empirical perspectives for improved science education in urban high schools*. Symposium presentation at the annual meeting of the National

Association for Research in Science Teaching, Philadelphia, PA.

04. Tobin, K. (2003, February). *Seeing and using science in everyday life*. Paper presented at the 24th Annual Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

03. Tobin, K. & Roth, W-M. (2003, January). *Implementing coteaching/cogenerative dialoguing in an urban science teacher preparation program*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, St. Louis, MO.

02. Tobin, K. (2003, January). *Forging new pathways to scientific literacy*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, St. Louis, MO.

01. Milne, C., Otieno, T. Scantlebury, K. & Tobin, K. (2003, January). *Developing a chemistry education course for practicing teachers*. Symposium presentation at the annual meeting of the Association for the Education of Teachers of Science, St. Louis, MO.

## 2002

### SUMMARY:

**Total: 26**

**Editorial: 02**

**Books: 02**

**Refereed Journals: 06**

**Chapters: 05**

**Papers International/National: 11**

### PAPERS PUBLISHED IN REFEREED JOURNAL

06. Tobin, K. & Roth, W-M. (2002). Concerning the fallibility of judgments from the side, the rear, and on high: A dialogue about Scriven's critique. *Journal of Personnel Evaluation in Education*, 16, 307-314.

05. Roth, W.-M., & Tobin, K. (2002). Redesigning an "urban" teacher education program: An activity theory perspective. *Mind, Culture, & Activity*, 9 (2), 108-131.

04. Tobin, K., & Roth, W-M. (2002). The contradictions in science education peer review and possibilities for change. *Research in Science Education*, 32, 269-280.

03. Tobin, K. (2002). The multiple faces of peer review in science education. *Research in Science Education*, 32, 135-156.

02. Roth, W-M., Tobin, K., & Zimmermann, A. (2002). Coteaching/cogenerative dialoguing: learning environments research as classroom praxis. *Learning Environments Research*, 5, 1-28.

01. Roth, W-M., Tobin, K., Zimmermann, A., Bryant, N., & Davis, C. (2002). Lessons on/from the dihybrid cross: An activity theoretical study of learning in coteaching. *Journal of Research in Science Teaching*, 39, 253-282.

### EDITORIAL

02. Roth, W-M., & Tobin, K. (2002). Peer review in science education: An introduction. *Research in Science Education*, 32, 127-134.

01. Barton, A. C., & Tobin, K. (2002). Learning about transformative research through others' stories: What does it mean to involve "others" in science education reform? *Journal of Research in Science Teaching*, 39, 110-113.

### BOOKS

02. Roth, W-M., & Tobin, K. (2002). *At the elbows of another: Learning to teach through coteaching*. New York, NY: Peter Lang Publishing.

01. Taylor, P., Gilmer, P. & Tobin, K. (Eds) (2002). *Transforming undergraduate science teaching: Social constructivist perspectives*. New York, NY: Peter Lang Publishing.

### CHAPTERS

05. Tobin, K., Elmesky, R. & Carambo, C. (2002). Learning environments in urban science classrooms: Contradictions, conflict and the reproduction of social inequality. In S. C Goh, & S. K. Myint (Eds). *Studies in educational learning environment: An international perspective* (101-129). Singapore: World Scientific Publishing Co.

04. Tobin, K. & Roth, W-M. (2002). Evaluation of science teaching performance through coteaching and cogenerative dialoguing. In J. Altschuld & D. Kumar (Eds). *Evaluation in science education in the 21st century* (187-217). Dordrecht, Netherlands: Kluwer Academic Publishing.

03. Tobin, K. (2002). Learning to teach science using the internet to connect communities of learners. In Taylor, P., Gilmer, P. & Tobin, K.

(Eds). *Transforming undergraduate science teaching: Social constructivist perspectives* (pp. 323-348). New York, NY: Peter Lang Publishing.

02. Roth, W.-M. & Tobin, K. (2002) College physics teaching: From boundary work to border crossing and community building. In Taylor, P., Gilmer, P. & Tobin, K. (Eds). *Transforming undergraduate science teaching: Social constructivist perspectives* (pp. 145-180). New York, NY: Peter Lang Publishing.

01. Tobin, K. (2002). Beyond the bold rhetoric of reform: (Re)Learning to teach science appropriately. In W-M. Roth and J. Desautels. *Science education as/for sociopolitical action* (pp. 125-150). NY: Peter Lang Publishing.

## **PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS**

11. Tobin, K. (2002, April). *Urban science education: Issues, answers and measures*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

10. Tobin, K. (2002, April). *Dilemmas of science teaching: Perspectives on problems of practice*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

09. Tobin, K. (2002, April). *Equity and urban school science: Possibilities and challenges*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

08. Tobin, K. (2002, April). *The laboratory in science education: Foundations for the 21<sup>st</sup> century*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

07. Tobin, K. & Roth, W-M. (2002, April). *Macro and micro methods in research on the teaching and learning of science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

06. Tobin, K. (2002, April). *Students as researchers: Agency and the breaching of inequities in urban science education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching.

05. Tobin, K. & Carambo, C. (2002, April). *Coherence and contradictions in teaching and learning to teach science in urban schools*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

04. Tobin, K. (2002, April). *Learning to teach transformatively in urban schools*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

03. Milne, C. E., Otieno, T., & Tobin, K. (2002, March). *The learned curriculum in a professional education program for practicing teachers: The importance of agency and context*. Paper presented at the Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

02. Tobin, K. (2002, March). *Social and cultural perspectives on the teaching and learning of science in urban high schools*. Paper presented at the Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

01. Tobin, K. (2002, January). *The transformative potential of science teacher education for the teaching and learning of science in urban high schools*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Charlotte, NC.

# 2001

## **SUMMARY:**

**Total: 24**

**Books: 01**

**Monograph: 01**

**Refereed Journals: 07**

**Editorial: 03**

**Chapters: 02**

**Papers International/National: 10**

## **PAPERS PUBLISHED IN REFEREED JOURNAL**

07. Tobin, K. (2001). Learning/knowning how to teach science in urban high schools. *Educational Horizons*, fall, 41-45.

06. Tobin, K., Roth W-M., & Zimmermann, A. (2001). Learning to teach in urban schools. *Journal of Research in Science Teaching*, 38, 941-964.

05. Seiler G., Tobin, K., & Sokolic J. (2001). Design, technology and science: Sites for learning, resistance and social reproduction in urban schools. *Journal of Research in Science Teaching*, 38, 746-767.

04. Roth W-M. & Tobin, K. (2001). Learning to teach science as practice. *Journal of Teaching and Teacher Education*, 17, 741-762.

03. Roth, W.-M., & Tobin, K. (2001). The Implications of coteaching/cogenerative dialogue for teacher evaluation: Learning from multiple perspectives of everyday practice. *Journal of Personnel Evaluation in Education*, 15, 7-29.

02. Roth, W.-M., Lawless, D., & Tobin, K. (2001). Time to teach: Toward a praxeology of teaching. *Canadian Journal of Education*, 25(1), 1-15.

01. Ritchie, S. M. & Tobin, K. (2001). Actions and discourses for transformative understanding in a middle school science class. *International Journal of Science Education*. 23, 283-299.

## EDITORIAL

03. Gallagher, J. J., Tobin, K. G., & Barton, A. C. (2001). Preface. *Journal of Research in Science Teaching*, 38, 1063-1064.

02. Barton, A. C., Tobin, K. & Gallagher, J. (2001). Preface. *Journal of Research in Science Teaching*, 38, 981-982.

01. Barton, A. C. & Tobin, K. (2001). Preface: Urban science education. *Journal of Research in Science Teaching*, 38, 843-846.

## BOOK

01. Roth, W.-M., Tobin, K. & Ritchie, S., (2001). *Re/constructing elementary science*. New York, NY: Peter Lang Publishing.

## MONOGRAPH

01. Sweeney, A. & Tobin, K. (Eds). (2001). *Language, discourse and learning in science: Improving professional practice through action research*. Tallahassee, FL: The Eisenhower Consortium for Mathematics & Science Education at SERVE.

## CHAPTERS

02. Tobin, K. (2001). Both/and perspectives on the nature of science. In J. Wallace, & W. Louden, (Eds.), *Dilemmas of science teaching: Perspectives on problems of practice*. London: Routledge Falmer.

01. Tobin, K. (2001). Helping students realize their potential. In D.J. Tippins, T. Koballa, & B. Payne, (Eds). *Learning from cases: Unraveling the complexities of elementary science teaching* (pp. 59-61). Needham Heights, MA: Allyn & Bacon Publishing.

## PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS

01. Tobin, K., Roth, W.-M., & Zimmermann, A. (2001, January). *Learning to teach in urban schools*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, CA.

02. Tobin, K., & Seiler, G. (2001, January). *Science Teacher education as a transformative activity*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, CA.

03. Seiler, G. & Tobin, K. (2001, January). *Redesigning a science methods course to ameliorate the theory-practice gap*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Costa Mesa, CA.

04. Tobin, K. (2001, March). *Trends in urban science education: social production, resource appropriation, and the agency of teachers*. Paper presented at the Ethnography in Education Research Forum, University of Pennsylvania, Philadelphia, PA.

05. Tobin, K. (2001, March). *From science learner to science teacher: Constructing and re-presenting science to afford the learning of others*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

06. Tobin, K. (2001, March). *Creating communities that afford learning to teach science in urban schools*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

07. Tobin, K. & Seiler, G. (2001, March). *Catalyzing change in urban science education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, St. Louis, MO.

08. Tobin, K. & Roth, W.-M. (2001, April). *Theoretical and empirical perspectives on coteaching as a means of assessing teaching performance*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

09. Roth, W.-M., & Tobin, K. (2001, April). *Redesigning an urban teacher education program: An activity theory perspective*. Paper presented at

the annual meeting of the American Educational Research Association, Seattle, WA.

10. Roth, W.-M., & Tobin, K. (2001, April). *Coteaching: Learning environments research as aspect of classroom praxis*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

# 2000

## SUMMARY:

**Total: 19**

**Refereed Journals: 3**

**Chapters: 2**

**Papers in edited volumes: 1**

**Editorial: 1**

**Papers International/National: 11**

**Papers Regional/Local: 1**

## PAPERS PUBLISHED IN REFEREED JOURNAL

03. Nichols, S. & Tobin, K. (2000). Discursive practice among teachers co-learning during field-based teacher preparation experiences. *Action in Teacher Education*, 22(2A), 45-54.

02. Roth, W.-M., Lawless, D. V., & Tobin, K. (2000). {Coteaching | Cogenerative Dialoguing} as praxis of dialectic method. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research [On-line Journal]*, 1(3). Available at: <http://qualitative-research.net/fqs/fqs-eng.htm> [Date of access: Month Day, Year].

01. Tobin, K. (2000). Becoming an urban science educator. *Research in Science Education*, 30(1), 89-106.

## EDITORIAL

01. Tobin, K. (2000). Catalysing changes in research on learning environments: Regional Editor's introduction. *Learning Environments Research: An International Journal*, 2, 223-224.

## CHAPTERS

02. Tobin, K. (2000). Interpretive research in science education. In A. E. Kelly, & R. Lesh (Eds.), *Handbook of research design in mathematics and science education* (pp.487-512). Mahwah, NJ: Lawrence Erlbaum Associates.

01. Tobin, K. (2000). Constructivism in science education: Moving on ... In D. C. Phillips, *Constructivism in education*, (NSSE Yearbook). Chicago, Illinois: The University of Chicago Press p. 227-253.

## PAPERS PRESENTED AT NATIONAL/INTERNATIONAL MEETINGS

11. Tobin, K. (2000, July). *Connecting communities of learners (CCL): A computer application for learning to teach*. Paper presented at the 18<sup>th</sup> World Conference on Reading, International Reading Association, Auckland, New Zealand.

10. Tobin, K. (2000, June). *New roles for learning science in urban high schools*. Paper presented at the annual meeting of the Australasian Science Education Research Association, Perth, Western Australia.

09. Tobin, K. (2000, June). *Coteaching as a way of learning to teach science*. Paper presented at the annual meeting of the Australasian Science Education Research Association, Perth, Western Australia.

08. Tobin, K. (2000, April). *National standards and traditional science curricula: Agents of social reproduction?* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

07. Vigoda, J., Tobin, K. & Seiler, G. (2000, April). *Student teachers' perceptions of inner city schools*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

06. Seiler, G. & Tobin, K. (2000, April). *Students' perceptions of repression, social justice and the failure to learn science in an inner city high school*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

05. Tobin, K. (2000, April). *The significance of context in teaching and learning science in urban communities*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.

04. Tobin, K. (2000, April). *Overcoming racial stereotyping and resistance in a socially transformative science curriculum enacted in an urban high school*. Paper presented at the annual

meeting of the National Association for Research in Science Teaching, New Orleans, LA.

03. Roth, W-M., & Tobin, K. (2000, January). *Learning to teach science as praxis*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Akron, OH.

02. Seiler, G., & Tobin, K. (2000, January). *Learning to teach by coteaching in communities of prospective and practicing science teachers*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Akron, OH.

01. Tobin, K., & McGonigal, J. (2000, January). *Applying interactive computer technologies in the education of prospective elementary teachers*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Akron, OH.

### **PAPERS PRESENTED AT REGIONAL/LOCAL MEETINGS**

01. Tobin, K. (2000, March). *University-assisted community schools: Integrating teacher education*. Paper presented at a Special Topic workshop on university-assisted community schools, University of Pennsylvania, Philadelphia, PA.

### **PAPERS IN EDITED VOLUMES**

01. Tobin, K. (2000). Teachers should know the discipline they teach: Teacher education reform implications. In *The Superintendents' and Deans' Forum on Standards-Based Teaching: Preparing teachers for the challenge*. Philadelphia, PA: Temple University Center for Research in Human Development and Education p. 9-22.

# 1999

**Summary:**  
**TOTAL: 20**

**Refereed Journals: 6**

**Chapters: 3**

**Papers International/National: 9**

**Papers Regional: 2**

### **Papers Published in Refereed Journals**

06. Goh, S.W. & Tobin, K. (1999). Student and teacher perspectives in a computer-mediated learning environment in teacher education.

*Learning Environment Research: An International Journal*, 2, 169-190.

05. Tobin, K. (1999). The value to science education of teachers researching their own praxis. *Research in Science Education*, 29, 159-169

04. Tobin, K., Seiler, G., & Walls, E. (1999). Reproduction of social class in the teaching and learning of science in urban high schools. *Research in Science Education*, 29, 171-187.

03. Tobin, K. (1999). The Internet as a tool for the reform of science teacher education: Transformative agent or catalyst for cultural reproduction? [Internet como instrumento de formación de los maestros de ciencias: ¿Agente transformador o catalizador de la reproducción cultural?]. *Enseñanza de las Ciencias* 17(2), 155-164.

02. Tobin, K., Seiler, G., & Smith, M. W. (1999). Educating Science Teachers for the Sociocultural Diversity of Urban Schools *Research in Science Education*, 29, 68-88.

01. Tobin, K. (1999). Teachers as researchers and researchers as teachers. *Research in Science Education*, 29, 1-3.

### **Chapters**

03. Tobin, K. (1999). Social Constructivism: A referent for thinking about teaching or a way to teach? In T. R. Koballa, Jr. & D. J. Tippins (Eds.) *The Promise and Dilemmas of Teaching Middle and Secondary Science: A Classroom Case Handbook*. Upper Saddle Ridge, NJ: Merrill/Prentice-Hall. pp. 125-132.

02. Tobin, K. & McRobbie, C. (1999). Perspectives on the adequacy of teacher re-presentations of knowledge of electrochemistry. In J. Gess Newsome & N. Lederman *Pedagogical content knowledge and the teaching of science*. The Netherlands: Kluwer. pp. 215-234.

01. Tobin, K. (1999). *Social constructivist perspectives on the teaching of science*. In H. Waxman, & H. Walberg (Eds). *New direction for research on teaching*. Berkeley, CA: McCutchan Publishing Co. pp. 269-284.

### **Papers presented at national/international meetings**

09. Tobin, K. (1999, November). *The transformative potential of teacher education in urban schools*. Paper presented at Penn's National

conference on university-assisted community schools, Philadelphia, PA.

08. Scantlebury, K., Tobin, K., Kahle, J. B., & Ague, J. (1999, July). *The Quiet Achiever: Enacting culturally relevant science teaching in an American urban middle school*. Paper presented at the annual meeting of the Australasian Science Education Research Association, Rotorua, New Zealand.

07. Tobin, K. & Goh, S. C. (1999, April). *Student and teacher perspectives in a computer-mediated learning environment in teacher education*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

06. Tobin, K. & McGonigal, J. (1999, April) *Teachers, students and parents as co-learners, co-teachers, and co-researchers in junior primary school*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

05. Tobin, K. (1999, March). *Insider perspectives on the reform of science teaching and learning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

04. Tobin (1999, March). *Educating science teachers for the sociocultural diversity of urban schools*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

03. Tobin, K. (1999, January). *Learning to teach science: Use of an Internet application to create communities of learners*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Dallas, TX.

02. Tobin, K. (1999, January). *Learning to teach science in urban settings*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Dallas, TX.

01. Tobin, K. (1999, January). *Learning to teach by coparticipating within and between diverse communities*. Invited keynote address at Science teacher education toward the new millennium, Technion, Israel Institute of Technology, Haifa, Israel.

#### **Paper presented at Regional Meeting**

02. Tobin, K. (1999, November). *Evolving theories, roles and praxis in science teacher*

*education*. Keynote address at the annual meeting of the Southeastern Association for the Education of Teachers of Science.

01. Tobin, K. (1999, February). *Teacher should know the discipline they teach: Teacher education reform implications*. Paper presented at the annual meeting of the Mid-Atlantic Deans and Superintendents of Education, Ocean City, MD.

# 1998

#### **Summary:**

**Total: 13**

**Books: 1**

**Refereed Journals: 2**

**Chapters: 5**

**Papers International/National: 5**

#### **Papers Published in Refereed Journals**

02. Tobin, K. (1998). Qualitative perceptions of learning environments on the world wide web. *Learning Environment Research: An International Journal*, 1, 139-162.

01. Tobin, K. (1998). Authentic practice of elementary science. *International Journal of Educational Research*, Chapter 4, 303-310.

#### **Books**

01. Fraser, B.J. & Tobin K. (Eds). (1998). *International Handbook of Science Education*. Dordrecht, The Netherlands: Kluwer.

#### **Chapters**

05. Tobin, K. (1998). Ethical issues associated with research on teaching and learning. *Les Journées du Cirade*. Centre Interdisciplinaire de Recherche sur l'Apprentissage et le Développement en Éducation, Université du Québec à Montréal. (pp. 95-125).

04. Tobin, K. (1998). Sociocultural perspectives on the teaching and learning of science. In M. Laroche, N. Bednarz & J. Garrison, *Constructivism and Education*. London: Cambridge University Press. (pp. 195-212)

03. Schaller, J. & Tobin, K. (1998). Quality criteria for the genres of interpretive research. In Malone, J. Atweh, W., & Northfield, J. *Aspects of postgraduate supervision and research*. Hillsdale, NJ: Lawrence Erlbaum & Associates. (pp. 39-60)

02. Tobin, K. (1998). Issues and trends in the teaching of science. In B.J. Fraser and K. Tobin (Eds). *International handbook of science education*. Dordrecht, The Netherlands: Kluwer. (pp. 129-151)

01. Tobin, K. & Fraser, B.J. (1998). Qualitative and quantitative landscapes of classroom learning environments. In B.J. Fraser and K. Tobin (Eds). *International handbook of science education*. The Netherlands: Kluwer. (pp. 623-640)

#### **Papers presented at national/international meetings**

05. Tobin, K. (1998, April). *Neural networks and the construction of scientific discourse*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, San Diego, CA.

04. Tobin, K. (1998, April). *The practice of peer review in science education*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, San Diego, CA.

03. Tobin, K. & Vogl, L. (1998, April). *Science classrooms as a mosaic of alternatives: Multiple ways of seeing*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, San Diego, CA.

02. Tobin, K. & McRobbie, C. (1998, April). *Selecting from a bricolage of stories: Describing and deconstructing epistemology of practice*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

01. Tobin, K. (1998, March). *Studies of science education in urban schools: Research that makes a difference*. Paper presented at the 7th consultation of the international consultation for research in science and mathematics education, Port of Spain, Trinidad.

# 1997

#### **Summary:**

**Total: 25**

**Refereed Journals: 6**

**Chapters: 1**

**Papers International/National: 18**

#### **Papers Published in Refereed Journals**

06. Roth, W.M., Tobin, K., & Shaw, K. (1997). Cascades of inscriptions and the re-presentation of

nature: How numbers, tables, graphs, and money come to re-present a rolling ball. *International Journal of Science Education*, 19, 1075-1091.

05. Tobin, K. & McRobbie, C. (1997). Beliefs about the nature of Science and the enacted science curriculum. *Science and Education*, 6, 355-371.

04. McRobbie, C. & Tobin, K. (1997). A social constructivist perspective on learning environments *International Journal of Science Education*, 19, 193-208.

03. Tobin, K., McRobbie, C.J., & Anderson, D. (1997). Dialectical constraints to the discursive practices of a high school physics community. *Journal of Research in Science Teaching* 34, 491-507.

02. Ritchie, S.M., Tobin, K., & Hook, K.S. (1997). Viability of mental models in learning chemistry. *Journal of Research in Science Teaching*, 34, 223-238.

01. Bodner, G. M., Metz, P.A., & Tobin, K. (1997). Cooperative learning: An alternative to teaching at a medieval university. *Australian Science Teachers' Journal*, 43, 23-28.

#### **Chapter**

01. Tobin, K. (1997). The teaching and learning of elementary science. In G.D Phye (Ed.), *A handbook of classroom learning: The construction of academic knowledge*. Orlando, FL: Academic Press. (pp. 369-403).

#### **Papers presented at national/international meetings**

01. Tobin, K. (January, 1997). *Sociocultural perspectives on the teaching and learning of science*. Keynote address at the International Conference on Science and Mathematics Education, Hanoi, Vietnam.

02. Tobin, K., Muire, C., & Davis, N. (March, 1997). *Cultural diversity and the challenges of teaching science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago.

03. Bleicher, R.E., McRobbie, C.J. & Tobin, K. (March, 1997). *Opportunities to talk science in classrooms*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago.

04. Puttick, G., Tobin, K., & Duschl, R. (March, 1997). *How much light does a plant need? Questions, data and theories in a second-grade classroom*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago.

05. Schaller, J. & Tobin, K. (March, 1997). *Establishing credibility and authenticity in ethnographic studies*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago.

06. Tobin, K. (March, 1997). *Teaching science methods to women: Tales from a male professor*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago.

07. Tobin, K. (April, 1997). *The mediational role of culture on the enacted science curriculum*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

08. Tobin, K. (April, 1997). *A multi-level analysis of mathematics and science education in Florida's community colleges*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

09. Tobin, K. (April, 1997). *The contribution of qualitative methods in learning environment research*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

10. Tobin, K. (April, 1997). *Traditional practices as a referent for enacting a science curriculum*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

11. Bleicher, R.E., McRobbie, C.J. & Tobin, K. (April, 1997). *The discourse of science classrooms*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

12. Tobin, K. (April, 1997). *The emergence of a scientific discourse in a physics program for prospective science teachers*. Paper presented at the 8th National Conference on College Teaching and Learning, Jacksonville, Florida.

13. Tobin, K. (April, 1997). *Building communities of learners on the World Wide Web*. Paper presented at the 8th National Conference on College Teaching and Learning, Jacksonville, Florida.

14. Davis, N.T., & Tobin, K. (April, 1997). *Portfolios as sites for critical discourse*. Paper presented at the 8th National Conference on College Teaching and Learning, Jacksonville, Florida.

15. Muire, W. C. & Tobin, K. (April, 1997). *Maintaining the status quo: An interpretive investigation of the teaching of science in Florida's community colleges*. Paper presented at the 8th National Conference on College Teaching and Learning, Jacksonville, Florida.

16. Tobin, K., (August, 1997). *Advances in learning theory and the reform of science and mathematics teaching and learning*. EXPO keynote address, PROMASE Teachers as Researchers Conference, Miami, Florida.

17. Tobin, K. (September, 1997). *Sociocultural perspectives on using the internet to educate science teachers for challenging contexts*. Plenary address at the Investigacion e innovacion en la didactica de las ciencias, Universidad de Murcia, Spain.

18. Tobin, K. (September, 1997). *The social construction and re-presentation of science teacher knowledge*. Plenary debate at the Investigacion e innovacion en la didactica de las ciencias, Universidad de Murcia, Spain.

# 1996

## Summary:

**Total: 20**

**Refereed Journals: 4**

**Chapters: 3**

**Papers International/National: 10**

**Presented paper Regional: 3**

## Papers Published in Refereed Journals

04. Tobin, K. & Tippins, D. (1996). Metaphors as seeds for learning and the improvement of science teaching. *Science Education*, 80, 711-730.

03. Tobin, K. & McRobbie, C.J. (1996). Cultural myths as restraints to the enacted science curriculum. *Science Education*, 80, 223-241.

02. Tobin, K. & McRobbie, C. (1996). Significance of limited English proficiency and cultural capital to the performance in science of Chinese-Australians. *Journal of Research in Science Teaching*, 33, 265-282.

01. Roth, W.M., & Tobin, K. (1996). Aristotle and natural observation versus Galileo and (stacked) scientific experiment or physics lectures as rhetorical events. *Journal of Research in Science Teaching*, 33, 135-157.

### Chapters

03. Tobin, K. (1996). Cultural perspectives on the teaching and learning of science. In Ogawa, M. (Ed.). *Traditional culture, science and technology and development - Toward a new literacy for science and technology*. Tokyo, Japan: Research Project, Science-Technology and Society. pp. 75-99.

02. Tobin, K. (1996). Teacher learning, teacher education and educational reform. In Treagust, D.F., Duit, R., and Fraser, B.J. *Improving Teaching and learning in science and mathematics*. New York: Teachers College Press. pp. 175-189.

01. Fraser, B.J. & Tobin, K. (1996). Exemplary teaching of science: Its meaning in the post-compulsory years. In P. Fensham, (Ed.). *Science and technology education in post-compulsory education*. Melbourne, Australia: The Australian Council for Educational Research. pp. 98-118.

### Papers Presented at National and International Meetings.

10. Tobin, K. (September, 1996). *Sociocultural perspectives on the practice of science education*. Paper presented at the first workshop of the Research Project "Science Technology and Society", University of Ibaraka, Mito City, Japan.

09. Tobin, K. (September, 1996). *Moving out: The exclusion of minorities from the community of science*. Paper presented at the second workshop of the Research Project "Science Technology and Society", Tokyo Institute of Technology, Tokyo, Japan.

08. Tobin, K. (1996, April). *Constraining the learning of science: Profiles of power, social forces, and discursive capital*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, St Louis, Missouri.

07. Kahle, J.B. & Tobin, K. (1996, April). *Research demanded by systemic reform: Multi-level analyses of interpretive data*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, St Louis, Missouri.

06. Tobin, K. & McRobbie, C. (1996, April). *Limited English proficiency and the teaching and*

*learning of science*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

05. Tobin, K., McRobbie, C., & Anderson, D. (1996, April). *Teacher knowledge, the dispersion of power, and the enactment of the chemistry curriculum*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

04. Tobin, K. & McRobbie, C. (1996, April). *Dialectical constraints to teaching and learning within a high school physics community*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.

03. Tobin, K. (1996, March). *Native language: Deficiency or capital? Limited English proficiency and the learning of science*. Paper presented at the annual meeting of the American Association for Applied Linguistics, Chicago, IL.

02. Tobin, K. (1996, February). *Assessing progress: Describing the landscape of science and mathematics education in Florida*. Paper presented at the annual meeting of the American Association for the Advancement of Science, Baltimore, MD.

01. Tobin, K. (1996, February). *Peaks and valleys in the reform of college science teaching*. Paper presented at the sixth international consortium for research in science and mathematics education, Belize City, Belize.

### Papers presented at regional meeting.

03. Tobin, K. (1996, November). *Discourse genres, the WWW and the delivery of advanced degrees in science education*. Paper presented at the Southeastern Association for the Education of Teachers of Science, Atlanta, GA.

02. Tobin, K. (1996, November). *Using NUD•IST as a tool for qualitative research*. Pre-conference session presented at the Southeastern association for the Education of Teachers of Science, Atlanta, GA.

01. Tobin, K. (1996, March). *Improving the quality of interpretive research in science education*. Paper presented at the annual meeting of the Southeast Association for the Education of Teachers in Science, Jackson's Gap, AL.

# 1995

**Summary:**

**Total: 28**

**Refereed Journals: 6**

**Chapters: 8**

**Papers International/National: 12**

**Presented papers Regional: 2**

**Papers Published in Refereed Journals**

06. Ritchie, S.M., Tobin, K., & Hook, K.S. (1995). Exploring the boundaries: A study of multiple classroom learning environments. *Research in Science Education*, 25(3), 307-322.

05. Tobin, K., Roth, W. M., & Brush, S. (1995). Teaching physics to prospective elementary teachers: Bridging gaps or widening chasms? *Research in Science Education*, 25(3), 267-281.

04. Tippins, D.J., Tobin, K. & Nichols, S.E. (1995). Constructivism as a referent for elementary science teaching and learning. *Research in Science Education*, 25(2), 135-149.

03. McRobbie, C.J., & Tobin, K. (1995). Restraints to reform: The congruence of teacher and student actions in a chemistry classroom. *Journal of Research in Science Teaching*, 32(4), 373-385.

02. Lorsbach, A. & Tobin, K. (1995). Toward a critical approach to the study of learning environments in science classrooms. *Research in Science Education*, 25(1), 19-32.

01. Tobin, K. & LaMaster, S. (1995). Relationships between metaphors, beliefs and actions in a context of science curriculum change. *Journal of Research in Science Teaching* 32(3), 225-242.

**Chapters**

08. Tobin, K. (1995). Teacher change and the assessment of teacher performance. In Fraser, B.J. & Walberg, H. *Improving science education*. Brussels: International Academy of Education. pp. 145-170.

07. Tobin, K. & Roth W-M. (1995). Bridging the great divide: Teaching from the perspective of one who knows and learning from the perspective of one who does not know. *Proceedings of the History and Philosophy of Science and Science Teaching*. Minneapolis: University of Minnesota. pp. 1204-1216.

06. Tobin K. (1995). Integrating science across the curriculum. In Chemistry: Connections to our

changing world. Englewood Cliffs, NJ: Prentice Hall. pp. 48-49.

05. Tobin, K. (1995). Learning from the stories of science teachers. In A. Haley Oliphant, *Exploring the place of exemplary science teaching*. Washington, DC: AAAS Press. pp. 161-180.

04. Tobin, K. (1995) Critical perspectives on constructivism, power, and the mediation of science learning In A. Hofstein, B. Eylon, & G. J. Giddings (1995). *Israel: Science Education: From Theory to Practice*. The Weizmann Institute of Science. ISBN 965 281 0037. pp. 301-309

03. Tobin, K. (1995). Impediments to the improvement of teaching and learning practices in science classrooms in developing countries. In A. Hofstein, B. Eylon, & G. J. Giddings (1995). *Science Education: From Theory to Practice*. Israel: The Weizmann Institute of Science. ISBN 965 281 0037. pp. 279-287

02. Tobin, K., Tippins, D.J., & Hook, K.S. (1995). Students' beliefs about epistemology, science, and classroom learning: A question of fit. In S. Glynn & R. Duit (Eds.), *Learning science in the schools: Research informing practice*. New York: Erlbaum. pp. 85-108.

01. Tobin, K. (1995). Gender equity and the enacted science curriculum. In Parker, L., Rennie, L. & Fraser, B.J. *Gender Issues in Science Education*. Amsterdam: Kluwer.

**Papers Presented at National and International Meetings**

12. Tobin, K. & Roth W-M. (1995). Bridging the great divide: Teaching from the perspective of one who knows and learning from the perspective of one who does not know. *Proceedings of the History and Philosophy of Science and Science Teaching*. Minneapolis: University of Minnesota.

11. McRobbie, C., & Tobin, K. (1995, July). *The school as a learning place for teachers*. Paper presented at the annual meeting of the Australasian Science Education Research Association, Bendigo, Australia.

10. Tobin, K. (1995, April). *Issues of commensurability in the use of qualitative and quantitative measures*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

09. Gilmer, P., Moscovici, H., Mattson, S., & Tobin, K. (1995, April). *Bridging the gap between the beliefs and practices of college biology teachers and the science-related needs of prospective elementary teachers*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

08. McRobbie, C. & Tobin, K. (1995, April). *School as a learning place for science teachers*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

07. Tobin, K. (1995, April). *Culture, social class and ethnic diversity as challenges to science teaching and learning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco, CA.

06. Taylor, P., White, L., Tobin, K., & Williams, M. (1995, April). *Interpretive research in science, mathematics and computer classrooms*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

05. Tobin, K. (1995, April). *The construction of viable scientific knowledge from elementary science activities*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

04. Tobin, K. (1995, April). *Framing classroom learning environments to incorporate sociocultural diversity*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

03. McRobbie, C., & Tobin, K. (1995, April). *The school learning environment: Place for teacher learning or a busy workplace?* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

02. Tobin, K. (1995, January). *Teaching physics to prospective elementary teachers: Bridging gaps or widening chasms?* Paper presented at the annual meeting of the American Association of Physics Teachers, Orlando, FL.

01. Tobin, K. (1995, January). *The many faces of collaboration: Planning and teaching science courses for prospective elementary teachers*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Charleston, West Virginia.

## Papers Presented at Regional Meetings

02. Tobin, K. (1995). *Beliefs about teaching, learning and the nature of science: Relationships with the enacted curriculum of college physics*. Paper presented at the annual meeting of the Southeastern Association for the Education of Teachers of Science, Pensacola, FL.

01. Davis, N. & Tobin, K. (1995, March). *Science teacher education in the Year 2000: Breaking free of the rules that bind us*. Paper presented at the annual meeting of the Southeastern Association for the Education of Teachers of Science, Pensacola, FL.

# 1994

## Summary:

**Total 25**

**Refereed Journals: 4**

**Chapters: 1**

**Papers International/National: 18**

**Presented papers Regional: 2**

## Papers Published in Refereed Journals

04. Hester, M., Nichols, S., & Tobin, K. (1994). What's happening in science in Florida's elementary schools? *Florida Science Teacher*, **10**(1), 19-24.

03. Tobin, K. Tippins, D.J., & Hook, K.S. (1994). Referents for changing a science curriculum: A case study of one teacher's change in beliefs. *Science & Education*, **3**(3), 245-264.

02. Hester, M.M. & Tobin, K. (1994). Mathematics in Florida's Elementary Schools: A statewide survey of mathematics teaching and learning. *Dimensions in Mathematics*, **14**(1), 20-30.

01. Tippins, D.J., Nichols, S. & Tobin, K. (1994). Reconstructing science teacher education within communities of learners. *Journal of Science Teacher Education*, **4**(3), 65-72.

## Chapter

01. Tobin, K., Tippins, D.J., & Gallard, A. (1994). Teachers as learners in the reform of science education. In D. Gabel, *Handbook for Research on Science Teaching*. Macmillan. pp. 45-93.

## Papers Presented at National and International Meetings

18. Tobin, K. (1994, August). *Teaching and learning science and mathematics with understanding: The mediational role of the teacher*. Invited keynote address at the first meeting of the Latin-American Association for Research in Science Teaching, Panama City, Panama.

17. Tobin, K. & McRobbie, C. (1994, April). *Hegemony and the teaching and learning of physics*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

16. Tobin, K. & McRobbie, C. (1994, April). *The paradox of beliefs about the nature of science and the enacted science curriculum*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

15. Tobin, K. & McRobbie, C. (1994, April). *Epistemological fit and the hegemony of learning environments*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

14. Tobin, K. & McRobbie, C. (1994, April). *The challenge of culturally diverse settings in high school science*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

13. McRobbie, C. & Tobin, K. (1994, April). *The congruence of teacher and student beliefs about learning chemistry*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

12. McRobbie, C. & Tobin, K. (April, 1994). *Social construction of teacher and learner: constraints to the learning of chemistry*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

11. McRobbie, C. & Tobin, K. (April, 1994). *Sociocultural analyses of learning environments in high school classes*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

10. Shaw, K., Stark, C. & Tobin, K. (1994, April). *Mathematics and science learning milieus in diverse schools in Florida*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

09. Tobin, K. (March, 1994). *Teachers as learners and the promotion of cultural change in schools*.

Paper presented at the annual meeting of the National Science Teachers Association, Anaheim, CA.

08. Tobin, K. (1994, March). *Diversity: The foundation of research in science education*. Presidential address, annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

07. Tobin, K. (1994, March). *The emergence of interpretive research as a way of knowing in science education in Taiwan*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

06. Tobin, K. (1994, March). *Impediments to the improvement of teaching and learning practices in science classrooms in developing countries*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

05. Tobin, K. & McRobbie, C. (1994, March). *School science: beyond blind faith?* Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

04. McRobbie & Tobin, K. (1994, March). An analysis of learning environments in high school science classes. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

03. Shaw, K., Stark, C. & Tobin, K. (1994, March). *A survey of the science learning environments in Florida's public schools*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

02. Moscovici, H. & Tobin, K. (1994, March). *Use of learning environment surveys in an interpretive research on a college biology course for prospective elementary teachers*. Paper presented at the annual meeting of the National Association of Research in Science Teaching, Anaheim, CA.

01. Nichols, S., Tobin, K., Tippins, D., & Crockett, D. (1994, February). *Educational environments for the teaching and learning of elementary science: Questions of fit*. Paper presented at the annual meeting of the Association of Teacher Educators, Atlanta, GA.

#### **Paper Presented at Regional Meeting**

02. Tobin, K. (1994, November). *Constructivism as a referent for the teaching and learning of college*

*physics*. Paper presented at the semi-annual meeting of the Higher Educational Consortium for Science and Mathematics Education, Tampa, Florida.

01. Tobin, K. (1994, August). *Crises in the teaching of elementary science: The role of Community Colleges in facilitating science content knowledge*. paper presented at the annual meeting of the Southeast region of Community Colleges, Savannah, GA.

# 1993

## Summary:

**Total: 32**

**Books: 2**

**Refereed Journals: 3**

**Chapters: 5**

**Technical Report: 1**

**Papers International/National: 21**

## Papers Published in Refereed Journals

03. Tippins, D., Tobin, K. & Hook, K. (1993). Constructivist perspectives on the ethical dimensions of teaching. *Journal of Moral Education*, 22(3), 221-240.

02. Tobin, K. (1993). Referents for making sense of science teaching. *International Journal of Science Teaching*, 15(3), 241-254.

01. Tippins, D.J., Tobin, K., & Hook, K. (1993). Dealing with dilemmas of laboratory science: Making sense of safety from a constructivist perspective. *International Journal of Science Education*, 15(1), 45-59.

## Books

01. Tobin, K (Ed.). (1993). *The practice of constructivism in science education*. Washington, D.C.: American Association for the Advancement of Science Press.

ALSO published as

01. Tobin, K. (Ed.). (1993). *The practice of constructivism in science education*. Hillsdale, NJ: Lawrence Erlbaum & Associates.

02. Gardner, A. L., Cochran, K. F., & Tobin, K. (1993). *Critical issues in reforming elementary teacher preparation in mathematics and science*. Greeley, CO: University of Northern Colorado.

## Chapters

05. Tobin, K. (1993). Constructivist perspectives on teacher learning. In Tobin, K. (Ed.), *The practice of constructivism in science education*. Washington, D.C.: AAAS Press. Chapter 13, 213-226.

04. Tobin, K. & Tippins, D.J. (1993). Constructivism as a referent for teaching and learning. In Tobin, K. (Ed.), *The practice of constructivism in science education*. Hillsdale, NJ: Lawrence Erlbaum & Associates. Chapter 1, 3-21.

03. Tobin, K. (1993). An interpretive account of a conference on the preparation of elementary teachers of science and mathematics. In A.L. Gardner, K.F. Cochran & Tobin, K. (Eds.), *Critical issues in reforming elementary teacher preparation in mathematics and science*. Greeley, NC: University of Northern Colorado (pp. 367-392).

02. Barrow, D. & Tobin, K. (1993). Reflections on the role of teacher education in science curriculum reform. In R. Rubba, L. Campbell, & T. Dana (Eds.), *Excellence in Educating Teachers of Science*. 1993 Yearbook of the Association for the Education of Teachers in Science. Columbus, OH: ERIC Clearinghouse for Science, Mathematics and Environmental Education, pp. 115-130.

01. Tobin, K. & Imwold, D. (1993). The mediational role of constraints in the reform of mathematics curricula. In J.A. Malone & P.C.S. Taylor *Constructivist interpretations of teaching and learning mathematics*. Perth, Australia: Curtin University Press, pp. 15-34.

## Technical Report

01. Spiegel, S.A., Tobin, K., & Shaw, K. (1993, January). *A report card on mathematics, science, and computer education in Florida: State level efforts*. Tallahassee, Fl: College of Education, Florida State University.

## Papers Presented at National and International Meetings

21. Tobin, K. (1993, November). *Getting started in interpretive research in science education*. Paper presented at the International Conference for Interpretive Research in Science Education, Taipei.

20. Tobin, K. (1993, November). *Qualitative and quantitative approaches to research on learning environments*. Paper presented at the International

Conference for Interpretive Research in Science Education, Taipei.

19. McRobbie, C., & Tobin, K. (1993, November). *Constraints to the teaching and learning of chemistry*. Paper presented at the International Conference for Interpretive Research in Science Education, Taipei.

18. Tobin, K. (1993, November). *Constructivism, teaching, and research on teaching*. Paper presented at the 73rd annual meeting of the National Council for the Social Studies, Nashville, Tennessee.

17. Tobin, K. Tippins, D. & Hook, K.S. (1993, November). *Ethics in the context of science teaching: The dimensions of practice*. Paper presented at the 19th annual conference of the Association for Moral Education, Tallahassee, FL.

16. Tobin, K. (1993, July). *Research in science education in times of evolving practice*. Paper presented at the annual meeting of the Australian Science Education Research Association, Lismore, Australia.

15. Tobin, K. (1993, July). *The paradoxes of systemic reform in science education*. Paper presented at the annual meeting of the Australian Science Education Research Association, Lismore, Australia.

14. Gilmer, P.J., Barrow, D. & Tobin, K. (1993, April). *Overcoming barriers to reform of science content courses for prospective elementary teachers*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

13. Tippins, D.J., Tobin, K., & Hook, K.S. (1993, April). *Collaborative processes of knowledge construction in science teaching and learning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

12. Tobin, K. (1993, April). *Research issues in science teacher education*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

11. Tobin, K. (1993, April) *On the necessity of the use of reform to inform the practice of reform*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

10. Tobin, K. (1993, April). *The role of reflective tools in teacher learning and change*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

09. Tobin, K. (1993, April). *The mediational role of the teacher in the classroom*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

08. Tobin, K. (1993, April). *Bridging the gap between radical constructivism and cognitive theory: Socio-cultural perspectives*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

07. Lorsbach, A. & Tobin, K. (1993, April). *Interests as a referent for the learning environment*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

06. Tobin, K. (1993, April). *Quantitative and qualitative issues and complementarities in the study of learning environments*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

05. Tobin, K., Tippins, D.J., & Hook, K.S. (1993, April). *Thinking about teaching and learning: The mediational role of the teacher*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

04. Tippins, D.J., Tobin, K., & Hook, K.S. (1993, April). *Assisting collaborative processes of knowledge construction: Ethical dilemmas of a middle school science teacher*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

03. Spiegel, S., Tobin, K. & Shaw, K. (1993, April). *A comprehensive plan? Florida's curricular reform effort*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

02. Tobin, K. (1993, April). *The teacher: An essential ingredient in the reform of the science curriculum*. Paper presented at the 205th annual meeting of the American Chemical Society, Denver, March 28-April 2.

01. Tobin, K. (1993, January). *Critical perspectives on constructivism, power, and the mediation of science learning*. Paper presented at a conference on

Science Education in Developing Countries,  
Jerusalem, Israel.

# 1992

## Summary:

**Total: 29**

**Refereed Journals: 5**

**Chapters: 4**

**Papers International/National: 20**

## Papers Published in Refereed Journals

05. Fraser, B.J., Tobin, K., Kahle, J.B. (1992). Factors which militate against learning science with understanding. *Australian Science Teachers Journal*, 38(3), 63-66.

04. Tobin, K. & Dawson, G. (1992) Constraints to curriculum reform: Teachers and the myths of schooling. *Educational Technology Research and Development*, 40(1), 81-92.

03. Fraser, B.J., Tobin, K. & Kahle, J.B. (1992). Learning science with understanding: In search of the Holy Grail? *Research in Science and Technology Education*, 10(1), 65-81.

02. Lorscheid, A.W., Tobin, K., Briscoe, C., & Ulerick LaMaster, S. (1992). An interpretation of assessment methods in middle school science. *International Journal of Science Education*, 14(3), 305-317.

01. Tobin, K. (1992). Ethical concerns and research in science classrooms: Resolved and unresolved dilemmas. *Science Education*, 76(1), 105-117

## Chapters

04. Fraser, B.J. & Tobin, K. (1992). Combining qualitative and quantitative methods in the study of learning environments. In H.C. Waxman & C.D. Ellett (Eds). *The study of learning environments. Volume 5*. Houston, TX: University of Houston, pp. 21-33.

03. Lorscheid, A. & Tobin, K. (1992). Constructivism as a referent for science teaching. In Lawrenz, F. *Research matters ... to the science teacher*. Monograph number 5. Kansas State University: National Association for Research in Science Teaching.

02. Tobin, K. & Jakubowski, E. (1992). The cognitive requisites for improving the performance of elementary mathematics and science teaching. In Ross, E.W., Cornett, J.W., & McCutcheon, G. (eds.), *Teacher personal theorizing: Connecting curriculum practice, theory and research*. Columbia University: University Press pp 161-178.

01. Tobin, K. & Ulerick, S. (1992). An interpretation of high school science teaching based on metaphors and beliefs for specific roles. In Ross, E.W., Cornett, J.W., & McCutcheon, G. (eds.), *Teacher personal theorizing: Connecting curriculum practice, theory and research*. Columbia University: University Press pp 115-136.

## Papers Presented at National and International Meetings

20. Tobin, K. (September, 1992) *The theory-practice dialectic*. An invited address at the symposium on teaching and learning in science and mathematics, Wingspread Convention, Wisconsin.

19. Tobin, K. & Imwold, D. (August, 1992). *Reconceptualizing, deconstructing, and reconstructing routines for the teaching and learning of mathematics*. Paper presented at the seventh International Conference on Mathematical Education, Quebec, Canada.

18. Tobin, K. (July, 1992). *Interpretive research in science education: A beacon of light in a forest of darkness*. Paper presented at an International Conference of Teaching and Learning Science and Mathematics, National Changhua University of Education, Taiwan.

17. Tobin, K. (July, 1992). *The folly of top down reform*. Paper presented at an International Conference of Teaching and Learning Science and Mathematics at the National Changhua University of Education, Changhua, Taiwan.

16. Tobin, K. (May, 1992). *HPS & ST and teacher education*. Symposium presentation at the second international conference of the History and Philosophy of Science and Science Teaching.

15. Tobin, K., Tippins, D. & Hook, K. (May, 1992). *The long hard road from objectivism to constructivism*. Paper presented at the second international conference of the History and Philosophy of Science and Science Teaching.

14. Tippins, D., Tobin, K. & Hook, K. (May, 1992). *Ethical decisions at the heart of science teaching: Reframing assessment dilemmas from a*

*constructivist perspective*. Paper presented at the second international conference of the History and Philosophy of Science and Science Teaching.

13. Tobin, K. (April, 1992). *Sustaining curricular reform*. Paper presented in a symposium at the annual meeting of the American Educational Research Association, San Francisco.

12. Tobin, K. (April, 1992). *Educating teachers in a constructed, culture-mediated context*. Paper presented in a symposium at the annual meeting of the American Educational Research Association, San Francisco.

11. Tobin, K., Tippins, D. & Hook, K. (April, 1992). *The construction and reconstruction of teacher knowledge*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

10. Tippins, D., Tobin, K. & Hook, K. (April, 1992). *Constructivist perspectives on the ethical dimensions of teaching*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

09. Gallard, A., Tobin, K., Barrow, D. & Alfaro, G. (April, 1992). *Teacher education and curricular reform: confronting the challenges of science learning for non-native speakers of English*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

08. Hook, K., Tobin, K. & Tippins, D. (April, 1992). *The teacher's role in maintaining a favorable learning environment*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

07. Tobin, K. (March, 1992). *Teacher beliefs and science teaching*. Paper presented at the annual meeting of the National Science Teachers Association, Boston, MA.

06. Tobin, K. (March, 1992). *Making sense of science teaching in terms of images, metaphors and beliefs*. Paper presented at the annual meeting of the National Science Teachers Association, Boston, MA.

05. Tobin, K. (March, 1992). *Confronting the challenge: Educating science teachers so that traditional practices make no sense at all*. Paper presented as a part of a symposium at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

04. Tobin, K., Tippins, D. & Hook, K. (March, 1992). *Critical reform of the science curriculum: a journey from objectivism to constructivism*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

03. Tippins, D., Tobin, K. & Hook, K. (March, 1992). *Ethical dilemmas in science teaching*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA.

02. Tobin, K. (Feb, 1992). *Teacher learning and teacher change: Epistemological dimensions for reconceptualizing teacher education*. A professional clinic presented at the 72nd annual meeting of the Association of Teacher Educators, Orlando, Florida.

01. Tobin, K. (Jan, 1992). *Constructivist perspectives on teaching and learning*. An invited address at the annual Qualitative Interest Group meeting, Athens, GA.

# 1991

## Summary:

**Total: 24**

**Edited Journal: 1**

**Refereed Journals: 6**

**Monographs: 2**

**Chapters: 6**

**Technical Report: 1**

**Papers International/National: 7**

**Presented papers Regional: 2**

## Papers Published in Refereed Journals

06. Tobin, K. & Hsiung, C.T. (1991). The process of learning through scientific experiments. *Elementary Education*, 31 (11 & 12), 2-5. (Article in Chinese).

05. Tobin, K., Davis, N.T., Shaw, K.L., & Jakubowski, E.H. (1991). Enhancing science and mathematics teaching. *Journal of Science Teacher Education*, 2(4), 85-89

04. Tobin, K. (1991). Anthropological perspectives on science classrooms: Teachers' role perceptions. *Florida Science Teachers Journal*, 7(1), 9,10,19.

03. Jakubowski, E. & Tobin, K. (1991). Enhancement of mathematics and science teaching. *Florida Journal of Teacher Education*, 6, 96-107.

02. Fraser, B.J., Rennie, L.J. & Tobin, K. (1991). The learning environment as a focus in a study of higher-level cognitive learning. *International Journal of Science Education*, 12(5), 531-548.

01. Gruender, D. & Tobin, K. (1991). Promise and prospect. *Science Education*, 75(1), 1-8.

#### Edited Journal

01. Gruender, C. D. & Tobin, K. (1991). *Science Education*. Special issue on the History and Philosophy of Science and Science Teaching, 75(1). Special guest editors.

#### Monographs

02. Tobin, K., & Fraser, B.J. (1991). *Teaching for high level cognitive learning in science*. Perth, Australia, Curtin University: Key Center Monograph.

01. Fraser, B.J., & Tobin, K. (1991). *Environments for learning science and mathematics*. Perth, Australia, Curtin University: Key Center Monograph.

#### Chapters

06. Fraser, B.J. & Tobin, K. (1991). Combining qualitative and quantitative methods in classroom environment research. In B.J. Fraser, & H.J. Walberg (Eds). *Educational environments: Evaluation, antecedents and consequences*. London: Pergamon Press.

05. Jakubowski, E. & Tobin, K. (1991). Building favorable learning environments through the empowerment of teachers and students. In B.J. Fraser, & H.J. Walberg (Eds). *Educational environments: Evaluation, antecedents and consequences*. London: Pergamon Press.

04. Tobin, K. (1991). Learning from interpretive research in science classrooms. In Gallagher, J.J. (ed.) *Interpretive research in science classrooms*. NARST monograph series number four. Cincinnati, OH: The University of Cincinnati.

03. Gallagher, J.J. & Tobin, K. (1991). How to write a report of interpretive research. In Gallagher, J.J. (ed.) *Interpretive research in science classrooms*. NARST monograph series number four. Cincinnati, OH: The University of Cincinnati.

02. Fraser, B.J. & Tobin, K. (1991). Psychosocial environment in exemplary teachers' classrooms. In

Waxman, H.C. & Ellett, C.D. *The study of learning environments, Volume 4*, 13-31. Houston, TX: College of Education, University of Houston.

01. Tobin, K. & Fraser, B.J. (1991). What can we learn from exemplary teachers of science and mathematics? In H. Waxman, & H. Walberg, (Eds) *Effective teaching: Current research*. Berkeley, CA: McCutchan Publishing Company, Chpt 10, pp. 217-236.

#### Technical Report

01. Tobin, K. (December, 1991). *District level mathematics and science supervisors: An analysis of questionnaires and interviews*. Tallahassee, FL: College of Education, Florida State University.

#### Papers Presented at National and International Meetings

07. Tobin, K. (April, 1991). *Making sense of science teaching*. Paper presented at the annual meeting of the National Association for Research on Science Teaching, Lake Geneva, WI, April 1991.

06. Tobin, K. (April, 1991) *Cognitive referents for research in science education*. Paper presented at the annual meeting of the National Association for Research on Science Teaching, Lake Geneva, WI, April 1991.

05. Tobin, K. (April, 1991). *The epistemologies embedded within teacher assessment practices*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

04. Tobin, K. (April, 1991). *Qualitative methods in classroom environment research: An American perspective*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

03. Tobin, K. (April, 1991). *Referents for making sense of teaching*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

02. Tobin, K. (February, 1991). *Constructivism: A framework for science curriculum*. Paper presented at the annual convention of the Association for Educational Communications and Technology, Orlando, Florida.

01. Tobin, K. (February, 1991). *Constructivist perspectives on teacher learning*. Paper presented at a symposium at the annual meeting of the American

Association for the Advancement of Science,  
Washington, D.C.

### **Papers Presented at State and Regional Meetings**

02. Tobin, K. (February, 1991). *Reconstructing the science curriculum*. Paper presented at the annual meeting of the South Eastern Association for the Education of Teachers of Science, Stone Mountain, Georgia.

01. Tobin, K. (February, 1991). *Learning how to teach science*. Award paper presented at the annual meeting of the South Eastern Association for the Education of Teachers of Science, Stone Mountain, Georgia.

# 1990

### **Summary:**

**Total: 29**

**Book: 1**

**Refereed Journals: 7**

**Chapters: 4**

**Monographs: 2**

**Technical Reports: 3**

**Papers International/National: 12**

### **Papers Published in Refereed Journals**

07. Tobin, K. (1990). Social constructivist perspectives on the reform of science education. *Australian Science Teachers Journal*, 36(4), 29-35.

06. Tobin, K., Treagust, D.F. & Chandran, S. (1990). Author's response to the comments and criticisms of Dr. Jophus Anamuah-Mensah. *Journal of Research in Science Teaching*, 27(6), 611-613.

05. Tobin, K., Briscoe, C. & Holman, J.R. (1990). Overcoming constraints to effective elementary science teaching. *Science Education*, 74(4), 409-420.

04. Tobin, K. (1990). Research on science laboratory activities: In pursuit of better questions and answers to improve learning. *School Science and Mathematics*, 90(5), 403-418.

03. Tobin, K. (1990). Changing metaphors and beliefs: A master switch for teaching. *Theory Into Practice*, 29(2), 122-127.

02. Tobin, K. & Espinet, M. (1990). Teachers helping teachers to improve high school

mathematics teaching. *School Science and Mathematics*, 90(3), 232-244.

01. Tobin, K. & Fraser, B.J. (1990). What does it mean to be an exemplary science teacher? *Journal of Research in Science Teaching*, 27(1), 3-25.

### **Book**

01. Tobin, K., Kahle, J.B., & Fraser, B.J. (Eds). (1990). *Windows into science classrooms: Problems associated with higher-level learning*. London: Falmer Press.

### **Monographs**

02. Tobin, K. (1990). *Target students*. What Research Says to the Science and Mathematics Teacher, Number 7. Perth, Australia: Key Centre for School Science and Mathematics, Curtin University.

01. Tobin, K. (1990). *Metaphors and images in teaching*. What Research Says to the Science and Mathematics Teacher, Number 5. Perth, Australia: Key Centre for School Science and Mathematics, Curtin University.

### **Chapters**

04. Tobin, K., Kahle, J.B. & Fraser, B.J. (1990). Conclusion: Barriers to high level cognitive learning in science. In Tobin, K., Kahle, J.B., & Fraser, B.J. *Windows into science classrooms: Problems associated with higher-level learning*. London: Falmer Press.

03. Tobin, K. (1990). Teacher mind frames and science learning. In Tobin, K., Kahle, J.B., & Fraser, B.J. *Windows into science classrooms: Problems associated with higher-level learning*. London: Falmer Press.

02. Tobin, K. (1990). Methods and background. In Tobin, K., Kahle, J.B., & Fraser, B.J. *Windows into science classrooms: Problems associated with higher-level learning*. London: Falmer Press.

01. Tobin, K., Kahle, J.B. & Fraser, B.J. (1990). Learning science with understanding: In search of the holy grail? In Tobin, K., Kahle, J.B., & Fraser, B.J. *Windows into science classrooms: Problems associated with higher-level learning*. London: Falmer Press.

### **Technical Reports**

Vita: Kenneth Tobin

03. Tobin, K. (November, 1990). *A review of the Louisiana Teacher Evaluation System*. Tallahassee, FL: College of Education, Florida State University.

02. Tobin, K. & Jakubowski, E. (1990). *Executive summary: Cooperating teacher project*. Tallahassee, FL: Florida State University.

01. Tobin, K, Jakubowski, E. & Nichols, S. (1990). *Cooperating teacher project*. Tallahassee, FL: Florida State University.

#### **Papers Presented at National and International Meetings**

12. Tobin, K. (August, 1990) *Enhancing the quality of science learning and teaching*. Paper presented at the 11th Biennial Conference on Chemical Education, Atlanta, GA.

11. Lorschach, A.W., Briscoe, C. Tobin, K., & Ulerick, S.L. (August, 1990). *An interpretation of assessment methods in middle and high school science*. Paper presented at the 11th Biennial Conference on Chemical Education, Atlanta, GA.

10. Tobin, K. (April, 1990). *Metaphors in the construction of teacher knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

09. Tobin, K. & Lorschach, A. (April, 1990). *The validity of alternative assessment methods in middle and high school science*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

08. Tobin, K. & Jakubowski, E. (April, 1990). *Conceptualizing teacher roles in terms of metaphors and belief sets*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

07. Tobin, K. (April, 1990) *Constructivist perspectives on teacher change*. Invited address at the annual meeting of the American Educational Research Association, Boston, MA.

06. Tobin, K. (April, 1990). *Priorities for research on science curriculum reform*. Invited address at a meeting sponsored by the National Science Foundation, Atlanta, Ga.

05. Tobin, K. (1990). *A review of research on teaching strategies in science*. An invited presentation at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

04. Tobin, K. (1990). *A review of research on teaching strategies in science*. An invited presentation at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

03. Briscoe, C., Lorschach, A. & Tobin, K. (March, 1990). *The influence of teachers' personal epistemologies, beliefs, and role metaphors on assessment practices*. Paper presented in a symposium at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

02. Tobin, K. (March, 1990). *Initiating and sustaining change in the science curriculum*. Paper presented in a symposium at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

01. Tobin, K. (March, 1990) *Interpretive research methods in science education*. Professional development workshop at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

# 1989

#### **Summary:**

**Total: 28**

**Refereed Journals: 10**

**Chapters: 5**

**Monographs: 2**

**Technical Report: 1**

**Papers International/National: 10**

#### **Papers Published in Refereed Journals**

10. Tobin, K. (1989). Enhancing the quality of high school science teaching. *Florida Journal of Teacher Education*, 6, 64-73.

09. Tobin, K. & Fraser, B. (1989). Barriers to higher-level cognitive learning in high school science. *Science Education*, 73(6), 659-682.

08. Tobin, K. & Malone, J. (1989). Differential student participation in whole-class activities. *Australian Journal of Education*, 33(3), 320-331.

07. Korbosky, R., Fraser, B.J. & Tobin, K. (1989). The potential of case studies of exemplary mathematics teaching. *International Journal of Mathematical Education in Science and Technology*, 20(6), 885-896.

06. Ciupryk, F.A., Fraser, B.J., Malone, J.A. & Tobin, K. (1989). Exemplary grade 1 mathematics teaching: A case study. *Journal of Research in Childhood Education*, 4(1), 40-50.

05. Fraser, B.J. & Tobin, K. (1989). Student perceptions of psychosocial environment in classrooms of exemplary science teachers. *International Journal of Science Education*, 11(1), 19-34.

04. Tobin, K., & Fraser, B.J. (1989). Case studies of exemplary science and mathematics teaching. *School Science and Mathematics*, 89(4), 320-334.

03. Tobin, K., Deacon, J. & Fraser, B.J. (1989). An investigation of exemplary physics teaching. *The Physics Teacher*, 27(3), 144-150.

02. Tobin, K. & Espinet, M. (1989). Impediments to change: An application of peer coaching in high school science. *Journal of Research in Science Teaching*, 26(2), 105-120.

01. Garnett, P.J. & Tobin K. (1989). Teaching for understanding: Exemplary practice in high school chemistry teaching. *Journal of Research in Science Teaching*, 26(1), 1-14.

### Monographs

02. Matyas, M. L., Tobin, K., & Fraser, B.J. (Eds) (1989) *Looking into windows: Qualitative research in science education*. Washington, D.C.: American Association for the Advancement of Science.

01. Fraser, B.J. & Tobin, K. (1989). *Exemplary science and mathematics teachers*. What Research Says to the Science and Mathematics Teacher, Number 1. Perth, Australia: Key Centre for School Science and Mathematics, Curtin University.

### Chapters

05. Fraser, B. & Tobin, K. (1989). A study of exemplary science and mathematics teachers. In Matyas, M. L., Tobin, K., & Fraser, B.J. (Eds) *Looking into windows: Qualitative research in science education*. Washington, D.C.: American Association for the Advancement of Science.

04. Tobin, K. (1989). Teachers as researchers: Expanding the knowledge base of teaching and learning. In Matyas, M. L., Tobin, K., & Fraser, B.J. (Eds) *Looking into windows: Qualitative research in science education*. Washington, D.C.: American Association for the Advancement of Science.

03. Tobin, K. (1989). Learning in science classrooms. In *Curriculum development for the year 2000*. Colorado Springs, Colorado: Biological Sciences Curriculum Study, pp. 25-38.

02. Tobin, K. (1989). *Teacher assessment systems: A personal view*. In J. Lokan & P. McKenzie (Eds). *Teacher appraisal: Issues and approaches*. Hawthorn, Australia: Australian Council for Educational Research Ltd, p. 81-89.

01. Tobin, K. (1989). The influence of wait time on learning in classrooms. In M.J. Dunkin (Ed), *International Encyclopedia of Education*, (First Supplement). New York: Pergamon Press.

### Technical Report

01. Tobin, K. (1989). *Alternative assessment in science and mathematics education*. Tallahassee, FL: Florida State University.

### Papers Presented at National and International Meetings

10. Tobin, K. & Jakubowski, E. (September, 1989). *Changing the roles of elementary science and mathematics teachers*. Paper presented at an International Conference on the use of ethnography in research on elementary science, Fredensborg, Denmark.

09. Tobin, K. (April, 1989). *What do we know about teaching and learning in science laboratories?* Paper presented at the annual meeting of the National Science Teachers Association, Seattle.

08. Rennie, L., Fraser, B.J. & Tobin, K. (March, 1989). *Using qualitative and quantitative methods in a study of high-level cognitive learning in grade 10. science classrooms*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

07. Tobin, K. & Ulerick, S. (March, 1989). *Improving teaching by changing the metaphorical basis for conceptualizing teaching roles*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

06. Tobin, K. (March, 1989). *Ethical Concerns and Research in Science Classrooms: Resolved and Unresolved Dilemmas*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

05. Ulerick, S. & Tobin, K. (March, 1989). *The influence of a teacher's beliefs on classroom management*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

04. Fraser, B.J. & Tobin, K. (March, 1989). *Combining qualitative and quantitative methods in the study of classroom learning environments*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

03. Tobin, K. & Ulerick, S. (March, 1989). *An interpretation of high school science teaching based on metaphors and beliefs for specific roles*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

02. Tobin, K. (March, 1989). *Metaphor as a basis for conceptualizing teaching roles*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

01. Tobin, K. (January, 1989). *Teachers as researchers and researchers as teachers: Expanding the knowledge base of teaching and learning*. Paper presented at the annual meeting of the American Association for the Advancement of Science, San Francisco.

# 1988

## Summary:

**Total: 34**

**Refereed Journals: 16**

**Review Article: 1**

**Monographs: 2**

**Technical Reports: 2**

**Papers International/National: 9**

**Presented papers Regional: 4**

## Papers Published in Refereed Journals

16. Fraser, B.J., Williamson, J.C. & Tobin, K. (1988). An evaluation of some senior colleges. *Journal of Educational Administration*, 26(3), 311-330.

15. Tobin, K. (1988). Improving science teaching practice. *International Journal of Science Education*, 10(5), 475-484.

14. Tobin, K. (1988). Target student involvement in high school science. *International Journal of Science Education*, 10(3), 317-330.

13. Tobin, K. (1988). Differential engagement of males and females in high school science. *International Journal of Science Education*, 10(3), 239-252.

12. Beresford, R. & Tobin, K. (1988). Variables influencing student attitudes to science homework tasks. *Australian Science Teachers Journal*, 34(1), 77-80.

11. Tobin, K. & Fraser, B.J. (1988). Investigations of exemplary practice in science and mathematics teaching in Western Australia. *Journal of Curriculum Studies*, 20(4), 369-371.

10. Tobin, K. & Fraser, B.J. (1988). Investigations of exemplary practice in Australian mathematics classes. *The Australian Mathematics Teacher*, 44(1), 5-8.

09. Tobin, K., Espinet, M., Byrd, S.E. & Adams, D. (1988). Alternative perspectives of effective science teaching. *Science Education*, 72(4), 433-451.

08. Tobin, K. & Fraser, B.J. (1988). Investigations of science and mathematics teaching in exemplary classrooms. *Australian Journal of Education*, 32, 75-94.

07. Tobin, K. & Fraser, B.J. (1988). Investigations of exemplary practice in Australian science classes. *Australian Science Teachers Journal*, 34(1), 23-29.

06. Fraser, B.J., Tobin, K. & Lacy, T. (1988). A study of exemplary primary science teachers. *Research in Science and Technology Education*, 6(1), 25-38.

05. Tobin, K. (1988). The validity of the Student Teacher Assessment Instrument. *The South Pacific Journal of Teacher Education*, 16(1), 37-51.

04. Tobin, K., Capie, W. & Bettencourt, A. (1988). Active teaching for higher cognitive learning in science. *International Journal of Science Education*, 10(1), 17-27.

03. Tobin, K., Treagust, D.F. & Fraser, B.J. (1988). An investigation of exemplary biology teaching. *The American Biology Teacher*, 50(3), 142-147.

02. Tobin, K. & Garnett, P. (1988). Exemplary practice in science classrooms. *Science Education*, 72(1), 197-208.

01. Tobin, K. (1988). Good science teaching: In the eye of the beholder? *Australian Science Teachers Journal*, 33(4), 15-20.

#### **Published Review Articles**

01. Tobin, K. (1988). Review of Fraser, B.J. (1986). *Classroom environment*. Croom Helm. *Educational and Psychological Measurement*, 48(1), 299.

#### **Technical Reports**

02. Holman, J.R., Briscoe, C., & Tobin K. (1988). *Overcoming constraints: One teacher can make a difference*. Tallahassee, FL: Florida State University.

01. Tobin, K., Ulerick, S., Jakubowski, E. & Briscoe, C. (1988). *The mentor teacher project: A report of a summer program to enhance science and mathematics teaching in elementary schools*. Tallahassee, FL: Florida State University.

#### **Papers Presented at National and International Meetings**

09. Tobin, K. (November, 1988). *Learning in science classrooms*. Invited paper presented at the BSCS 30th anniversary symposium on Curriculum Development for the Year 2000, Colorado Springs.

08. Tobin, K. (April, 1988). *Assessing science teachers' knowledge and thinking*. A symposium presentation at the annual meeting of the National Association for Research on Science Teaching, Lake Ozark, Mo.

07. Tobin, K. (April, 1988). *Interpretive research in science education*. A symposium presentation at the annual meeting of the National Association for Research in Science Teaching, Lake Ozark, Mo.

06. Tobin, K. & Fraser, B.J. (April, 1988). *Factors which inhibit the attainment of high level cognitive outcomes*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Lake Ozark, Mo.

05. Tobin, K. & Gallagher, J.J. (April, 1988) *Ethnographic techniques in science education*. A pre-session workshop at the annual meeting of the National Association for Research in Science Teaching, Lake Ozark, Mo.

04. Tobin, K. & Fraser, B.J. (April, 1988). *Impediments to the teaching and learning of high-level outcomes in high school science*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

03. Fraser, B.J. & Tobin, K. (April, 1988). *Psychosocial environment of exemplary teachers' classrooms*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

02. Cronin, L. & Tobin, K. (April, 1988). *The development of a model for studying curriculum implementation*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

01. Tobin, K. & Gallagher, J.J. (April, 1988). *Secondary science teaching: Classroom management and exemplary practice*. A paper presented at the annual meeting of the National Science Teachers Association, St Louis.

#### **Papers Presented at State and Regional Meetings**

04. Ulerick, S.L. Tobin, K. (September, 1988) *A teacher-as-researcher model for teacher enhancement*. Paper presented at the annual meeting of the, St Petersburg, FL.

03. Tobin, K. (April, 1988). *The road from quantitative to qualitative research*. Paper presented at a symposium on qualitative research in mathematics and science education, Purdue University.

02. Tobin, K. (April, 1988). *Teacher as a researcher*. Paper presented at a symposium on qualitative research in mathematics and science education, Purdue University.

01. Tobin, K. (April, 1988). *Tales from the field*. Paper presented at a symposium on qualitative research in mathematics and science education, Purdue University.

# 1987

#### **Summary:**

**Total: 38**

**Book: 1**

**Refereed Journals: 13**

**Chapters: 4**

**Monographs: 2**

**Technical Reports: 1**  
**Papers International/National: 14**  
**Presented papers Regional: 3**

**Papers Published in Refereed Journals**

13. Taylor, P., Fraser, B.J. & Tobin, K. (1987). Exemplary practice in grade 8 mathematics teaching. *The Journal of Science and Mathematics in South East Asia*, 10(2), 7-15.
12. Tobin, K. & Gallagher, J. J. (1987). What happens in high school science classrooms? *Journal of Curriculum Studies*, 19, 549-560.
11. Lucas, A.M. & Tobin, K. (1987). Problems with control of variables as a process skill, *Science Education*, 71(5), 685-690.
10. Tobin, K. (1987). Forces which shape the implemented curriculum in high school science and mathematics. *Journal of Teaching and Teacher Education*, 4(3), 287-298.
09. Fraser, B. J., Williamson, J. C., & Tobin, K. (1987). Use of classroom and school climate scales in evaluating alternative high schools. *Teaching and Teacher Education*, 3(3), 219-231.
08. Fraser, B.J., Williamson, J.C. & Tobin, K. (1987). Evaluating alternative high schools in terms of their classroom environments. *Studies in Educational Evaluation*, 13, 211-217.
07. Tobin, K. (1987). Australian research on teacher wait time. *Questioning Exchange*, 1, 125-141.
06. Gallagher, J.J. & Tobin, K. (1987). Teacher management and student engagement in high school science. *Science Education*, 71(4) 535-555.
05. Tobin, K. & Garnett, Pamela (1987). Gender related differences in classroom processes in science activities, *Science Education*, 71(1), 91-103.
04. Tobin, K. (1987). The role of wait time in higher cognitive level learning. *Review of Educational Research*, 57(1), 69-95.
03. Chandran, S., Treagust, D.F., & Tobin, K. (1987). The role of cognitive factors in chemistry achievement. *Journal of Research in Science Teaching*, 24(2), 145-160.
02. Tobin, K. & Gallagher, J.J. (1987). The role of target students in the science classroom. *Journal of Research in Science Teaching*, 24(1), 61-75.

01. Tobin, K. (1987). High school science. *Australian Science Teachers Journal*, 32(4), 22-30.

**Book**

01. Tobin, K. & Fraser, B.J. (Eds). (1987). *Exemplary practice in science and mathematics education*. Perth: Curtin University of Technology.

**Monographs**

02. Williamson, J., Fraser, B.J., Tobin, K., Canute, H., Lake, J.H. & Watts, O. (1987). *A summary of The Senior Colleges in Western Australia: An evaluation*. Perth, Western Australia: Ministry of Education.

01. Williamson, J., Fraser, B.J., Tobin, K., Canute, H., Lake, J.H. & Watts, O. (1987). *The Senior Colleges in Western Australia: An evaluation*. Perth, Western Australia: Ministry of Education.

**Chapters**

04. Tobin, K. & Fraser, B.J. (1987). Results and discussion. In Tobin, K. & Fraser, B.J. (Eds). *Exemplary practice in science and mathematics education*. Perth: Curtin University of Technology.
03. Tobin, K. (1987). A comparison of exemplary and non- exemplary teachers of science and mathematics. In Tobin, K. & Fraser, B.J. (Eds). *Exemplary practice in science and mathematics education*. Perth: Curtin University of Technology.
02. Tobin, K. & Fraser, B.J. (1987). Introduction to the exemplary practice in science and mathematics education study. In Tobin, K. & Fraser, B.J. (Eds). *Exemplary practice in science and mathematics education*. Perth: Curtin University of Technology.

01. Williamson, J., Tobin, K. & Fraser, B. (1987). Validation and application of College and University Classroom Environment Inventory (CUCEI). In B.J. Fraser (Ed.), *The study of learning environments, Volume 2*. Salem, Or: Assessment Research.

**Technical Report**

01. Tobin, K. (December, 1987). *Domain on the laboratory method of instruction*. Tallahassee, FL: Florida State University.

**Papers Presented at National and International Meetings**

14. Haines, T. & Tobin, K. (August, 1987). *Factors influencing achievement in undergraduate computer studies courses*. Paper presented at the annual meeting of the Higher Education Research and Development Society of Australasia, Perth, Australia.
13. Tobin, K. (August, 1987). *Teacher assessment systems: A personal view*. Invited paper at the Education Forum sponsored by the Australian Council for Educational Research, Melbourne, Australia.
12. Sloan, P. & Tobin, K. (April, 1987). *An interpretive study of behavior and task management in high school mathematics classes*. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.
11. Williamson, J., Tobin, K., & Lake, J.H. (April, 1987). *Alternative high schools: The Senior Colleges in Western Australia*. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.
10. Tobin, K., Espinet, M. & Byrd, S. (April, 1987). *An application of peer coaching in high school mathematics*. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.
09. Tobin, K., Espinet, M. & Byrd, S. (April, 1987). *The work of teachers and students in high school mathematics classes*. Paper presented at the annual meeting of the American Educational Research Association, Washington, DC.
08. Cronin, L., Padilla, M. & Tobin, K. (April, 1987). *Factors influencing the success of science curriculum implementation in middle schools*. Paper presented at the annual meeting of the National Association for Research on Science Teaching, Washington, DC.
07. Tobin, K. (April, 1987). *Impediments to change: An application of peer coaching in high school science*. Paper presented at the annual meeting of the National Association for Research on Science Teaching, Washington, DC.
06. Tobin, K. (April, 1987). *Teaching for higher cognitive level learning in science*. Paper presented at the annual meeting of the National Association for Research on Science Teaching, Washington, DC.
05. Tobin, K. & Fraser, B. J. (April, 1987). *What does it mean to be an exemplary teacher?* Paper presented at the annual meeting of the National Association for Research on Science Teaching, Washington, DC.
04. Tobin, K. (March, 1987). *Applications of constructivism and reflection to science teacher education: Countering the negative affect*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Washington, DC.
03. Tobin, K. (March, 1987). *International perspectives on science teacher education*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Washington, DC.
02. Fraser, B.J., Fisher, D. L. & Tobin, K. (March, 1987). *Using short forms of several classroom environment scales to assess and improve classroom psychosocial environment*. Paper presented at the annual meeting of the National Science Teachers Association, Washington, DC.
01. Tobin, K., Chandran, S. & Treagust, D. (March, 1987). *The role of cognitive factors in chemistry achievement*. Paper presented at the annual meeting of the National Science Teachers Association, Washington, DC.

#### **Papers Presented at State and Regional Meetings**

03. Tobin, K. (October, 1987). *Research in Western Australian science classrooms: Policy issues*. Paper presented at the annual meeting of the Western Australian Science Education Association, Murdoch University, Perth.
02. Fraser, B.J. & Tobin, K. (October, 1987). *Case studies of exemplary science teaching: A synthesis*. Paper presented at the annual meeting of the Western Australian Science Education Association, Murdoch University, Perth.
01. Fraser, B.J. & Tobin, K. (September, 1987). *What have we learned from studies of exemplary teachers?* Paper presented at the Western Australian Institute of Educational Research Annual Research Forum, Western Australian College of Advanced Education, Perth.

# 1986

#### **Summary:**

**Total: 28**

**Refereed Journals: 4**

**Chapters: 2**

**Technical Reports: 1**

**Papers International/National: 14**

**Presented papers Regional: 7**

#### **Papers Published in Refereed Journals**

04. Tobin, K. (1986). Validating teacher performance measures against student engagement and achievement in middle school science. *Science Education*, 70(5), 539-547.

03. Tobin, K. (1986). Laboratory activities in science, *European Journal of Science Education*, 8(2), 199-211.

02. Tobin, K. (1986). Effects of teacher wait time on discourse characteristics in mathematics and language arts classes. *American Educational Research Journal*, 23(2), 191-200.

01. Tobin, K. (1986). Student task involvement and achievement in process-oriented science activities. *Science Education*, 70(1), 61-72.

#### **Chapters**

02. Tobin, K. (1986). Gender differences in science?: They don't happen here! In B.J. Fraser and G. Giddings *The Physicist and the cowboy: Gender differences in the science classroom*. Perth: WAIT Press.

01. Tobin, K. & Gallagher, J.J. (1986). Nature and role of target students in science classroom environments. In Fraser, B.J. (Ed.) *The study of learning environments*. Salem, Or: Assessment Research.

#### **Technical Report**

01. Tobin, K. (July, 1986). *A review of literature relevant to the Teacher Performance Assessment Instruments*. Athens, GA: Teacher Assessment Project, College of Education, University of Georgia.

#### **Papers Presented at National and International Meetings**

14. Tobin, K. (November, 1986). *Forces which shape the implemented curriculum*. Paper presented at the annual meeting of the Australian Association for Research in Education, Melbourne.

13. Tobin, K., & Fraser, B.J. (November, 1986). *Exemplary practice in science and mathematics*. Paper presented at the annual meeting of the Australian Association for Research in Education, Melbourne.

12. Williamson, J., Canute, H., Watts, O., Lake, J., Tobin, K. & Fraser, B. (1986, July). *An evaluation of the Senior Colleges in Western Australia*. Paper presented at the annual meeting of the South Pacific Association of Teacher Education, Perth.

11. Fraser, B., Malone, J., Tobin, K., Treagust, D., Garnett, P., & Happs, J. (1986, July). *Exemplary practice in science and mathematics education*. Symposium presentation at the annual conference of the South Pacific Association of Teacher Education, Perth.

10. Malone, J., & Tobin, K. (1986, July). *The role of target students in the mathematics classroom*. Paper presented at the annual meeting of the Mathematics Education Research Group in Australasia, Launceston.

09. Tobin, K. & Espinet, M. (April, 1986). *Academic work in high school mathematics classes*. Paper presented at the annual meeting of the Ethnography in Education Research Forum, University of Pennsylvania.

08. Tobin, K. (April, 1986). *Target student involvement in high school science*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

07. Tobin, K. & Fraser, B. (April, 1986). *Investigations of science and mathematics teaching in exemplary classrooms*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

06. Tobin, K. & Malone, J. (April, 1986). *Target students in mathematics classrooms*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

05. Williamson, J., Tobin, K. & Fraser, B. (April, 1986). *Use of school and classroom environment scales in evaluating alternative high schools*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

04. Tobin, K., Adams, D., Espinet, M. & Byrd, S. (March, 1986). *Qualitative ethnographic and structured quantitative data collection; Grounded theory versus a-priori design: A data based comparison*. Paper presented at the annual meeting

of the National Association for Research in Science Teaching, San Francisco.

03. Tobin, K. (March, 1986). *Exemplary practice in science classes*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

02. Tobin, K. & Gallagher, J. (March, 1986). *Academic work in high school science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

01. Bettencourt, A., Byrd, S. & Tobin, K. (March, 1986). *Relationships between teacher performance, student perceptions of the learning environment and process skill achievement*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Francisco.

#### **Papers Presented at State and Regional Meetings**

07. Tobin, K. (October, 1986). *High school science teaching: Who's to blame?* Paper presented at the annual meeting of the Western Australian Science Education Association, University of Western Australia, Nedlands.

06. Tobin, K. (October, 1986). *Effective Teaching?: In the eye of the beholder*. Paper presented at the annual meeting of the Western Australian Science Education Association, University of Western Australia, Nedlands.

05. Tobin, K. (September, 1986). *Factors influencing work in high school science and mathematics classes*. Paper presented at a Research Forum conducted by the Western Australian Institute of Educational Research, Nedlands, Western Australia.

04. Tobin, K. (May, 1986). *Applications of peer coaching models in science and mathematics teaching*. Paper presented at the annual meeting of the Georgia CESA personnel, Athens, GA.

03. Bettencourt, A., Capie, W. & Tobin, K. (1986). *Motivation in the structure of the teacher assessment and development systems-meritorious teacher performance form*. Paper presented at the annual meeting of the Eastern Educational Research Association, Miami Florida.

02. Tobin, K. & Capie, W. (1986). *An investigation of the nature of halo effects in teacher performance assessment measures*. Paper presented

at the annual meeting of the Eastern Educational Research Association, Miami Florida.

01. Tobin, K. (Jan, 1986): *Perspectives on the Teacher Performance Assessment Instrument and systems for assessing teacher performance*. Invited address at the annual Conference of the Georgia Teacher Assessment staff.

# 1985

#### **Summary:**

**Total: 18**

**Refereed Journals: 5**

**Monographs: 1**

**Technical Reports: 1**

**Papers International/National: 9**

**Presented papers Regional: 2**

#### **Papers Published in Refereed Journals**

04. Garnett, P.J., Tobin, K. & Swingler, D.G. (1985). Reasoning abilities of Western Australian secondary school students and implications for the teaching of science. *European Journal of Science Education*, 7(4), 387-397.

03. Tobin, K. (1985). Teaching strategy analysis models in middle school science education courses. *Science Education*, 69(1), 69-82.

02. Tobin, K. & Tobin, B.J. (1985). The one computer classroom: Applications in language arts. *Australian Journal of Reading*, 8(3), 158-167.

01. Tobin, K. (1985). Applications of extended wait time in science classes. *Australian Science Teachers Journal*, 30(4), 61-66.

#### **Monograph**

01. Fraser, B.J. & Tobin K. (Eds) (1985). *Secondary analysis of educational data*. Perth: WAIT Press.

#### **Published Review Article**

01. Tobin, K. (1985). Review of Fordham, A.M. (1983). The context of teaching and learning (ACER research monograph No 21). *Curriculum Perspectives*, 5(1), 66-67.

#### **Technical Report**

01. Tobin, K. (1985). *Development of the Student Teacher Assessment Instrument*. Western Australia: Western Australian Institute of Technology.

### **Papers Presented at National and International Meetings**

09. Tobin, K. (April 1985) *Wait time in science: Necessary but insufficient*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, French Lick Springs, In.

08. Gallagher, J. J. & Tobin, K. (April 1985). *Teacher management and student engagement in high school science*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, French Lick Springs, In.

07. Chandran, S., Treagust, D.F., & Tobin, K. (April 1985). *The role of cognitive factors in chemistry achievement*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, French Lick Springs, In.

06. Tobin, K. & Gallagher, J.J. (April 1985). *The role of target students in the science classroom*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, French Lick Springs, IN.

05. Tobin, K. (April 1985). *Applications of an extended teacher wait time in science classes*. Paper presented at the annual convention of the National Science Teachers Association, Cincinnati, OH.

04. Fraser, B.J., Fisher, D.L., & Tobin, K. (April 1985). *Effects of classroom environment on science students' achievement and attitudes*. Paper presented at the annual convention of the National Science Teachers Association, Cincinnati, OH.

03. Tobin, K. (April 1985). *Academic work in science classes*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

02. Tobin, K. (April 1985). *The nature and role of the target student in classroom interactions*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

01. Tobin, K. & Garnett, Pamela (April 1985). *Gender related differences in classroom processes in science activities*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

### **Papers Presented at State and Regional Meetings**

02. Byrd, S., Bettencourt, A., & Tobin, K. (November, 1985). *Relationships between teacher performance and student perceptions of the learning environment*. A paper presented at the annual meeting of the Georgia Educational Research Association.

01. Tobin, K. (June, 1985). *Laboratory activities in the science classroom*. A workshop presentation at the eighth annual conference of the Science Teachers Association of Western Australia, Muresk.

# 1984

## **Summary:**

**Total: 30**

**Refereed Journals: 12**

**Chapters: 2**

**Technical Reports: 1**

**Papers International/National: 12**

**Presented papers Regional: 3**

## **Papers Published in Refereed Journals**

12. Tobin, K. (1984). Assessing the importance of performance criteria for evaluating preservice teaching. *The Australian Journal of Teaching Practice*, 4(2), 27-36.

11. Tobin, K. (1984). Teaching data processing skills. *The Australian Mathematics Teacher*, 40(1), 29-31.

10. Tobin, K. & Garnett, P.J. (1984). Reasoning ability of preservice primary teachers: Implications for science teaching. *Australian Journal of Education*, 28(1), 89-98.

09. Tobin, K. (1984). Reasoning ability of upper primary school pupils. *Australian Science Teachers Journal*, 30, 75-81.

08. Tobin, K. (1984). Student engagement in science learning tasks. *European Journal of Science Education*, 6(4), 339-347.

07. Tobin, K. & Capie, W. (1984). The test of logical thinking: Development and Applications. *The Journal of Science and Mathematics in South East Asia*, 7(1), 5-9.

06. Tobin, K. (1984). Improving teacher performance assessment. *The South Pacific Journal of Teacher Education*, 12(2), 45-56.

05. Garnett, P.J. & Tobin, K. (1984). Reasoning patterns of preservice elementary and middle school science teachers. *Science Education*, 68(5), 621-631.

04. Tobin, K., Pike, G. & Lacy, T. (1984). Strategy analysis procedures for improving the quality of activity oriented science teaching. *European Journal of Science Education*, 6(1), 79-89.

03. Tobin, K. (1984). Avoiding cookbook science. *Science Activities*, 21(2), 10-15.

02. Tobin, K. (1984). Effects of extended wait time on discourse characteristics and achievement in middle school grades. *Journal of Research in Science Teaching*, 21(8), 779-791.

01. Tobin, K. (1984). Student task involvement in activity oriented science. *Journal of Research in Science Teaching*, 21(5), 469-482.

#### **Chapters**

02. Tobin, K. (1984). Qualitative and quantitative windows into classrooms. In Treagust, D.F. & Fraser, B.J. *Looking into classrooms*. Perth, Australia: WAIT Press.

01. Tobin, K., & Capie, W. (1984). Relationships between classroom processes and science learning. In Anderson, C. *Observing science classrooms: Perspectives from research and practice (1984 AETS Yearbook)*. ERIC/SMEAC, Ohio State University, 205-229.

#### **Technical Report**

01. Tobin, K. (1984). *Assessing the performance of preservice teachers*. Bentley, Western Australia: Western Australian Institute of Technology.

#### **Papers Presented at National and International Meetings**

12. Lacy, T., Tobin, K. & Treagust, D. (1984). *Applications of learning environment evaluation instruments in preservice science education courses*. Paper presented at the annual meeting of the Australian Association for Research in Education, Perth, Australia.

11. Berry, D. & Tobin, K. (1984). *A comparison of engagement, perceptions of the learning environment and achievement in traditional and self paced senior college physics classes*. Paper presented at the annual meeting of the Australian

Association for Research in Education, Perth, Australia.

10. Garnett, Pamela, J., Tobin, K. & Garnett, P.J. (1984). *Gender related differences in reasoning ability*. Paper presented at the annual meeting of the Australian Association for Research in Education, Perth, Australia.

09. Tobin, K. & Garnett, Pamela J. (1984). *Academic work in science classes*. Paper presented at the annual meeting of the Australian Association for Research in Education, Perth, Australia.

08. Blackmore, D., Treagust, D. & Tobin, K. (1984). *The relationship between content knowledge in genetics and formal reasoning ability*. Paper presented at the annual meeting of the Australian Association for Research in Education, Perth, Australia.

07. Chandran, S., Treagust, D., & Tobin, K. (1984). *The role of cognitive factors in chemistry achievement*. Paper presented at the annual meeting of the Australian Association for Research in Education, Perth, Australia.

06. Tobin, K. (June, 1984). *Validity and reliability of the test of logical thinking*. Paper presented at the tenth annual meeting of the International Association for Educational Assessment, Perth, Australia.

05. Garnett, P.G. & Tobin, K. (June, 1984). *Reasoning abilities of Western Australian secondary school students and implications for teaching science*. Paper presented at the tenth annual meeting of the International Association for Educational Assessment, Perth, Australia.

04. Blackmore, D., Treagust, D.F. & Tobin, K. (June, 1984). *Assessing content knowledge and its relationship to formal thinking*. Paper presented at the tenth annual meeting of the International Association for Educational Assessment, Perth, Australia.

03. Lacy, T., Tobin, K. & Treagust, D.F. (June, 1984). *Development, validation and reliability of the elementary science learning environment questionnaire*. Paper presented at the tenth annual meeting of the International Association for Educational Assessment, Perth, Australia.

02. Tobin, K. (May, 1984). *Improving the quality of pupil engagement in learning tasks in upper primary and lower secondary science classes*. Paper

and workshop presentation at the CONASTA conference, Perth, Australia.

01. Tobin, K. (April, 1984). *Improving the quality of teacher and student discourse in middle school grades*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

#### **Papers Presented at State and Regional Meetings**

03. Tobin, K. (May, 1984). Invited critic at a conference on *Tertiary Teaching: Techniques for improvement - The Australian experience*. University of Western Australia.

02. Tobin, K. (May 1984). *Using word processors in the writing classroom*. A paper and workshop presented at the annual meeting of the Mathematics Association and Reading Association, Churchlands.

01. Tobin, K. (April 1984). *Using performance feedback to improve teaching*. Paper presented at the annual meeting of the Western Australian Primary Principal's Association, Perth.

# 1983

#### **Summary:**

**Total: 14**

**Refereed Journals: 5**

**Chapter: 1**

**Papers International/National: 6**

**Presented papers Regional: 2**

#### **Papers Published in Refereed Journals**

04. Tobin, K. & Capie, W. (1983). The influence of wait time on classroom learning. *European Journal of Science Education*, 5(1), 35-48.

03. Tobin, K. (1983). Pupil outcomes from a process oriented science program. *Australian Science Teachers Journal*, 29(2), 33-37.

02. Tobin, K. & Lacy, T. (1983). School policy on primary science. *Australian Science Teachers Journal*, 29(2), 71-73.

01. Tobin, K. (1983). They came running: Teaching computing to primary school students. *Education*, 32(2), 26-28.

#### **Chapter**

01. Tobin, K. (1983). *Management of time in classrooms*. In Fraser, B.J. (Ed.) *Classroom Management*. Perth, Australia: WAIT Press, 22-35.

#### **Published Review Article**

01. Tobin, K. (1983). Expanded abstract and analysis prepared for *Investigations in Science Education*, 1983, 9(2), 15-17. Reviewed article Moore, K.D., and Piper, M.K. Factors underlying student teachers' attitudes toward science in a preservice elementary program. In Piper, M., and Moore, K. (eds.) *Attitudes toward science: Investigations*. Columbus, OH: SMEAC Information Reference Center, Ohio State University, 1977.

#### **Papers Presented at National and International Meetings**

06. Tobin, K. (May 1983). *Variables associated with student task involvement and achievement in upper primary mathematics and science*. Paper presented at the annual meeting of the Australian and New Zealand Association for the Advancement of Science, Perth, Australia.

05. Tobin, K. (April 1983). *Discourse patterns associated with the use of extended wait time in whole class settings*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Dallas.

04. Tobin, K. (April 1983). *Teaching science with a process skill emphasis*. Paper presented at the annual meeting of the National Science Teachers Association, Dallas.

03. Tobin, K. (April 1983). *Teaching strategy analysis models in middle school science education courses*. Paper presented at the annual meeting of the Association for the Education of Teachers of Science, Dallas.

02. Tobin, K. (April 1983). *Relationships between wait time, classroom discourse characteristics and mathematics achievement*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

01. Tobin, K. (April 1983). *Relationships between reasoning ability engagement and middle school science achievement*. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

#### **Papers Presented at State and Regional Meetings**

02. Tobin, K. (September 1983). *Enhancing student engagement in upper primary and lower secondary science activities*. Paper presented at the annual meeting of the Western Australian Science Education Association, Perth.

01. Tobin, K. (August 1983). *Management of time classrooms*. An invited address at a Research Seminar held at the Western Australian Institute of Technology, Perth.

# 1982

## Summary:

**Total: 19**

**Refereed Journals: 9**

**Monograph: 1**

**Papers International/National: 2**

**Presented papers Regional: 7**

## Papers Published in Refereed Journals

09. Tobin, K. & Capie, W. (1982). Relationships between classroom process variables and middle school science achievement. *Journal of Educational Psychology*, 74, 441-454.

08. Tobin, K. & Capie, W. (1982). Development and validation of a group test of integrated processes. *Journal of Research in Science Teaching*, 19, 133-142.

07. Tobin, K. & Capie, W. (1982). Relationships between formal reasoning ability, locus of control, academic engagement and integrated process skill achievement. *Journal of Research in Science Teaching*, 19, 113-122.

06. Tobin, K. & Capie, W. (March, 1982). Lessons with an emphasis on process skills. *Science and Children*, 26-28.

05. Tobin, K. (1982). Patterns of reasoning: Probability. *Research in Science Education*, 12, 42-49.

04. Tobin, K. (1982). A four phase model for activity oriented science: K-10. *Australian Science Teachers Journal*, 28(3), 63-71.

03. Tobin, K. (1982). Questioning in science. *Australian Science Teachers Journal*, 28(2), 45-50.

02. Tobin, K. (1982). Improving process skill teaching. *Australian Science Teachers Journal*, 28(1), 49-56.

01. Tobin, K. & Lacy, T. (1982). Levels of planning in primary science. *SCIOS*, 17(2), 37-47.

## Monograph

01. Tobin, K. & Capie, W. (1982) *Wait-time and learning in science*. Burlington, NC: Carolina Biological Supply Company.

## Papers Presented at National and International Meetings

02. Tobin, K. (May 1982). *A structural analysis of variables influencing engagement and science achievement*. Paper presented at the annual meeting of the Australian Science Education Research Association, Sydney, Australia.

01. Tobin, K. (May 1982). *Patterns of reasoning: Probability*. Paper presented at the annual meeting of the Australian Science Education Research Association, Sydney, Australia.

## Papers Presented at State and Regional Meetings

07. Tobin, K. (October 1982). *Pupil outcomes from a process science program*. Paper presented at the Drive-In Curriculum Conference, Perth.

06. Garnett, P.J. & Tobin, K. (September 1982). *Reasoning patterns of pre-service primary teachers*. Paper presented at the annual meeting of the Western Australian Science Education Association, Perth.

05. Tobin, K. (September 1982). *Reasoning ability of upper primary science pupils*. Paper presented at the annual meeting of the Western Australian Science Education Association, Perth.

04. Pike, G. & Tobin, K. (September 1982). *Strategy analysis for improving primary science teaching skills*. Paper presented at the annual meeting of the Western Australian Science Education Conference, Perth.

03. Tobin, K. (August 1982). *Workshop on assessing teacher performance*. Workshop conducted for the teacher assessment interest group of the Western Australian Institute of Educational Research, Perth.

02. Tobin, K. (June 1982). *Improving science by examining how teachers can influence student behaviour in science classrooms*. Workshop conducted at the sixth annual meeting of the Science Teachers Association of Western Australia, Muresk.

01. Tobin, K. (April 1982). *Assessing teaching performance*. Paper presented to the Western Australian Institute for Educational Research, Perth.

# 1981

## Summary:

**Total: 18**

**Refereed Journals: 4**

**Technical Reports: 1**

**Papers International/National: 9**

**Presented papers Regional: 4**

## Papers Published in Refereed Journals

04. Tobin, K. & Capie, W. (1981, September). Using wait time in science classes. *Science Scope*.

03. Capie, W. & Tobin, K. (1981). Pupil engagement in learning tasks: A fertile area for research in science teaching. *Journal of Research in Science Teaching*, 18, 409-417.

02. Tobin, K. & Capie, W. (1981). Development and validation of a group test of logical thinking. *Educational and Psychological Measurement*, 41(2), 413-424.

01. Tobin, K. (1981). Assessing the quality of classroom discourse. *SCIOS*, 16(3), 15-19.

## Technical Report

01. Tobin, K., Ellett, C.D., & Capie, W. (1981). *A summary report of the South Carolina Education Improvement Task Force statewide teacher performance content verification survey*. Athens, GA: Performance Assessment Systems, (Tech Rep 81:1).

## Papers Presented at National and International Meetings

09. Capie, W., Newton, R., & Tobin, K. (1981, May). *Identifying relationships among reasoning patterns*. Paper presented at the annual symposium of the Jean Piaget Society, Philadelphia.

08. Tobin, K., & Capie, W. (1981, April). *Assessing pupil engagement in learning activities*. Paper presented at the annual meeting of the

National Association for Research in Science Teaching, New York.

07. Tobin, K., Capie, W. & Newton, R. (1981, April). *Patterns of formal reasoning: Probabilistic reasoning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New York. (ERIC Document Reproduction Service No. ED207810)

06. Capie, W., Tobin, K. & Newton, R. (April, 1981). *Patterns of reasoning: Controlling variables*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, New York.

05. Newton, R., Capie, W., & Tobin, K. (April, 1981). *Patterns of reasoning: Proportional reasoning*. Paper presented at annual meeting of the National Association for Research in Science Teaching, New York.

04. Tobin, K. (1981, April). *Perspectives on improving classroom research: Experimental investigations of classroom processes*. Symposium presentation at the annual meeting of the American Educational Research Association, Los Angeles.

03. Tobin, K. & Capie, W. (1981, April). *Measuring pupil engagement*. A paper presented at the annual meeting of the American Educational Research Association, Los Angeles. (ERIC Document Reproduction Service No. ED2100274).

02. Tobin, K. & Capie, W. (1981, April). *An empirical investigation of the stability of variance components and generalizability coefficients derived from teacher performance data*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles. (ERIC Document Reproduction Service No. ED206656).

01. Capie, W., Tobin, K., Ellett, C., & Johnson, C. (1981, April). *The dependability of teacher performance rating scales for making certification decisions*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles.

## Papers Presented at State and Regional Meetings

04. Tobin, K. (1981, August). *Relationships between classroom process variables and middle school science achievement*. Paper presented to a meeting of the Western Australian Institute for Education Research, Perth.

03. Tobin, K. (1981, August). *What can children gain from a primary science program?* Workshop conducted at the Primary Science Seminar, Araluen.

02. Tobin, K. (1981, July). *Toward an understanding of teaching and learning.* Keynote address at the 7th Annual Science Education Conference, Perth, Australia. (ERIC Document Reproduction Service No. ED212489).

01. Ellett, C., Capie, W., & Tobin, K. (1981, March). *The generalizability of teacher performance ratings.* Paper presented at the annual meeting of the Eastern Educational Research Association, Philadelphia.

# 1980

## Summary:

**Total: 26**

**Refereed Journals: 3**

**Technical Reports: 6**

**Papers International/National: 9**

**Presented papers Regional: 7**

**Dissertation: 1**

## Papers Published in Refereed Journals

02. Tobin, K. (1980). The effect of an extended wait-time on science achievement. *Journal of Research in Science Teaching*, **17**, 469-475.

01. Tobin, K. & Capie, W. (1980). Teaching process skills in the middle school. *School Science and Mathematics*, **80**, 590-600.

## Published Review Article

01. Tobin, K. (1980). Science activities in energy. *Science and Children*, Feb., p.46.

## Technical Reports

06. Capie, W. & Tobin, K. (1980). *Planning teacher assessments: Sampling considerations.* Performance Assessment Systems, (Tech Rep 80:1).

05. Tobin, K., Capie, W., & Ellett, C.D. (1980). *Cluster analyses of ratings of importance to teaching of performance indicators.* Performance Assessment Systems, (Tech Rep 80:2).

04. Capie, W., Tobin, K., Ellett, C. & Johnson, C. (1980). *A factor analytic investigation of beginning teacher performance data.* Athens GA:

Teacher Assessment Project, The University of Georgia.

03. Capie, W., Tobin, K., Ellett, C. & Johnson, C. (1980). *The reliability of the Teacher Performance Assessment Instruments.* Athens, GA: Teacher Assessment Project, The University of Georgia.

02. Capie, W., Tobin, K., & Ellett, C.D. (1980). *Application of generalizability analyses to making classification decisions based on teacher performance ratings.* Athens, GA: Teacher Assessment Project, The University of Georgia, 1980.

01. Tobin, K., Riley, J.P. & Capie, W. (1980). *An investigation of the relationships between teachers' use of formal operations and science process skill acquisition.* Science Education Center Report in the Research and Development Report Series, #32, Department of Science Education, University of Georgia, Athens, Georgia.

## Papers Presented at National and International Meetings

09. Tobin, K. & Capie, W. *Effects of teacher wait time and questioning quality on middle school science achievement.* Paper presented at the annual meeting of the American Psychological Association, Montreal, Canada, September 1980. (ERIC Document Reproduction Service No. ED196860).

08. Capie, W., & Tobin, K. *Establishing alternative measures of logical thinking for use in group settings.* Paper presented at the annual meeting of the American Psychological Association, Montreal, Canada, September 1980.

07. Tobin K., & Capie, W. (1980, April). *Applications of generalizability theory to classroom process measures.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston MA. (ERIC Document Reproduction Service No. ED188890).

06. Tobin, K., & Capie, W. (1980, April). *The development and validation of a pencil and paper test of logical thinking.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Boston, MA. (ERIC Document Reproduction Service No. ED188891)

05. Capie, E., Tobin, K., & Bowell, M. (1980, April). *Using science achievement to validate student teacher competencies.* Paper presented at the annual meeting of the National Association for

Research in Science Teaching, Boston, MA. (ERIC Document Reproduction Service No. ED186261).

04. Tobin, K., & Capie, W. (1980, April). *The development and validation of a group test of logical thinking*. Paper presented at the annual meeting of the American educational Research Association, Boston, MA. (ERIC Document Reproduction Service No. ED191885).

03. Capie, W., Tobin, K. & Howell, M. (1980, April). *Using pupil achievement to validate ratings of student teaching performance*. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.

02. Capie, W. & Tobin, K. (1980, March). *A system for analysing lessons where investigations are planned*. Paper presented at the annual meeting of the Association for the Education of Teachers in Science, Anaheim CA.

01. Padilla, M., & Tobin, K. (1980, March). *Science teacher training for the middle school*. Paper presented at the annual meeting of the National Science Teachers Association, Anaheim CA.

#### **Papers Presented at State and Regional Meetings**

07. Capie, W., & Tobin, K. (1980, November). *Planning classroom research: Balancing practicality and necessity*. Paper presented at the annual meeting of the Mid South Educational Research Association, New Orleans.

06. Tobin, K., & Capie, W. (1980, November). *Relationships of selected dimensions of teacher performance with student engagement*. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans. (ERIC Document Reproduction Service No. ED194521).

05. Tobin, K. & Capie, W. (1980, November). *Student engagement in middle school science classrooms*. Paper presented at the annual meeting of the Southeastern Association for the Education of Teachers in Science, Orlando. (ERIC Document Reproduction Service No. ED194522)

04. Safter, W., Tobin, K. & Capie, W. (1980, March). *An empirical analysis of teacher effectiveness indices based on class mean gain scores*. Paper presented at the third annual meeting of the Eastern Educational Research Association Norfolk VA.

03. Tobin, K., Capie, W., Ellett, C.D. & Johnson, C.E. (1980, March). *A confirmatory analysis of the factor structure of teacher performance*. Paper presented at the third annual meeting of the Eastern Educational Research Association, Norfolk VA.

02. Tobin, K. & Capie, W. (1980, March). *The effects of student engagement rate, formal reasoning ability and locus of control on middle school science achievement*. Paper presented at the third annual meeting of the Eastern Educational Research Association, Norfolk VA. (ERIC Document Reproduction Service No. ED185021).

01. Tobin, K. & Capie, W. (1980, February). *Applications of generalizability theory to measures of teacher performance*. Paper presented at the eighteenth annual Southeastern Invitational Conference on Measurement in Education, The University of North Carolina at Greensboro NC.

#### **DISSERTATION**

Doctoral Dissertation (University of Georgia, USA) *The effects of variations in teacher wait-time and questioning quality on integrated science process achievement for middle school students of differing formal reasoning ability and locus of control*. *Dissertation Abstracts International*, 41(4):1520-A, October, 1980.

Major Professor: Dr. William Capie

# 1973-79

#### **Summary:**

**Total: 15**

**Refereed Journals: 8**

**Technical Reports: 2**

**Papers International/National: 2**

**Presented papers Regional: 2**

**Thesis: 1**

#### **Papers Published in Refereed Journals**

08. Tobin, K. (1978). Charge. *SCIOS*, 13(2), 27-30.

07. Tobin, K. (1978). Primary policy. *SCIOS*, 13(1), 20-23.

06. Tobin, K. (1977). Don't say it - pause. *SCIOS*, 12(4), 15-18.

Vita: Kenneth Tobin

05. Tobin, K. & Garnett, P. (1977). Getting started in primary science. *SCIOS*, **12**(2), 33-41.

04. Tobin, K. & Garnett, P. (1977). Getting started in primary science. *Education*, **26**, 18-21.

03. Tobin, K. (1975). Aspects of primary science. *Graylands Education News*, **10**, 50-60.

02. Tobin, K., & Blakeway, D. (1973). The law and science teaching, *Filter*, **1**(6), 1-2.

01. Tobin, K. (1979). Meeting the needs of gifted students. *Science and Children*, March, p.58.

### Technical Reports

02. Tobin, K., Capie, W., Ellett, C., & Johnson, C. (1979). *A factor analytic investigation of the structure underlying beginning teacher performance data*. Athens GA: Teacher Assessment Project, The University of Georgia.

01. Tobin, K. (1978, June). *Cognitive development of teachers: Implications for science teaching*. Perth: Mount Lawley College of Advanced Education.

### Papers Presented at National and International Meetings

02. Tobin, K. (1979, April). *The effect of an extended wait time on science achievement*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA. (ERIC Document Reproduction Service No. ED171577).

01. Capie, W., Yeany, R.H., & Tobin, K. (1979, March). *Training toward and measuring science process skill teaching behaviors*. Training session at the annual meeting of the Association for Education of Teachers in Science, World Congress Center, Atlanta Ga.

### Papers Presented at State and Regional Meetings

02. Tobin K. & Capie, W. (1979, December) *The relationships of formal reasoning ability, locus of control and time on task to science achievement*. Paper presented at the University of South Carolina Conference on Educational Research, Columbia SC. (ERIC Document Reproduction Service No. ED182184).

01. Tobin, K. & Capie, W. (1979, October). *The relationship of formal reasoning ability and locus*

*of control*. Paper presented at the annual meeting of the Southeastern Association for the Education of Teachers in Science, Kelleyton Alabama. (ERIC Document Reproduction No. ED17938).

### THESIS

*The effect of an extended wait-time on concept formation and problem solving for children in senior primary grades*. July, 1977. Masters Thesis (Western Australian Institute of Technology) Supervisor: Dr. Warren Walker.

### Post Doctoral Colleagues

03. Rowhea Elmesky (fall 2001 – spring 2004). Assistant professor, Washington University.

02. Catherine Milne (summer 2000 – summer 2002). Assistant professor, New York University.

01. Jere Holman (fall 1988- spring 1990). Associate professor, State University of New York, Geneseo.

### SUPERVISION OF DISSERTATIONS AND THESES

#### Doctoral Dissertations/Theses

01. Carol Briscoe (Graduated, Florida State University, spring 1991). *Cognitive frameworks and classroom practices: A case study of teacher learning and change*. Associate Professor, University of West Florida.

02. Tony Lorsbach (Graduated, Florida State University, fall 1991). *An examination of prospective teachers' beliefs about teaching, learning, and the nature of science*. Professor, Illinois State University.

03. Thomas Dana (Graduated, Florida State University, spring 1992). *Achieving comprehensive curriculum reform: An analysis of the implementation of the comprehensive plan for improving mathematics, science and computer education in Florida*. Professor, University of Florida.

04. Peter Taylor (Graduated, Curtin University, spring 1993) *An interpretive study of the role of teacher beliefs in the implementation of constructivist theory in a secondary school mathematics classroom*. Barry Fraser, co-major professor. Associate Professor, Curtin University, Australia.

05. Craig Bowen (Graduated, Florida State University, spring 1993). *But I came here to learn: Students' interpretations of their experiences in a College class for non-science majors*. Director of Medical Education Services, Johns Hopkins University School of Medicine.
06. Dorian Barrow (Graduated, Florida State University, spring 1993) *Restructuring college level physics for prospective elementary school teachers: A sociocultural analysis of the roles the instructor plays*. Professor, University of the West Indies at the St. Augustine Campus in Trinidad and Tobago.
07. Sheryl McGlamery (Graduated, Florida State University, fall 1993). *Science and gender: Factors that impact the science learning and achievement of women*. Associate Professor, University of Nebraska, Omaha, NE.
08. Gilberto Alfaro (Graduated, Florida State University, summer 1993) *Chemistry teaching practices and the social construction of professionalism in Costa Rica*. Professor, Universidad Nacionale, Heredia, Costa Rica.
09. Sabitra Brush (Graduated, Florida State University, fall 1993) *A case study of learning chemistry in a college physical science course developed for prospective elementary teachers*. Associate Professor, Armstrong Atlantic State University, Savannah, GA.
10. Jean Olson (Graduated, Florida State University, fall 1993). *Semantic construction of relationships in the curriculum of Algebra II and chemistry*. Assistant Principal, Rutherford High, Florida.
11. Hedi Moscovici (Graduated, Florida State University, spring 1994) *An interpretive investigation of teaching and learning in a college course for prospective elementary teachers*. Associate professor, California State University-Dominguez Hills, Carson, CA.
12. Sherry Nichols (Graduated, Florida State University, fall 1994). *Perspectives on teacher learning and science at an elementary professional practice school*. Associate Professor, University of Alabama, Tuscaloosa, AL.
13. Scott Robinson, (Graduated, Florida State University, fall 1995). *A narrative inquiry into the understanding and learning of high school physics*. Associate Professor, State University of New York, Brockport, NY.
14. Lilia Reyes-Herrera (Graduated, Florida State University, fall 1996). *The science teacher in action: Relationships between context, beliefs, behaviors and goals in the classroom*. Professor, Universidad Pedagógica Nacional, Santafé de Bogotá, Colombia
15. Sue Mattson (Graduated, Florida State University, fall 1997). *When world views collide: A study of interdepartmental collaboration to develop a biology curriculum for prospective elementary teachers*. Educational Specialist, Harvard-Smithsonian Center for Astrophysics, Boston, MA.
16. Chris Muire (Graduated, Florida State University, fall 1997). *Analyses of science education reform in Florida: Emerging from the eclipse or trapped in the darkness?* Assistant Professor, Berry College, Mount Berry, GA.
17. Susan Butler (Graduated, Florida State University, fall 1997). *Problem-based learning in a secondary science classroom*. Program Specialist, SERVE, Tallahassee, FL.
18. Ted Boydston (Graduated, Florida State University, spring 1999). *Interactions of policy-stakeholder groups implementing middle school science standards-based systemic reform*. Research Associate, Anchin Center, University of South Florida, Tampa Bay, FL.
19. Judith McGonigal (Graduated, Curtin University, summer 2000). *Reforming elementary science through the coparticipation of educators, parents, and students*. Science teacher, Haddonfield Middle School, Haddonfield, NJ.
20. Gale Seiler (Graduated, University of Pennsylvania, spring 2002). *A critical look at teaching, learning, and learning to teach science in an inner city, neighbourhood high school*. Assistant Professor, University of Maryland at Baltimore, Baltimore, MD.
21. Melissa Sterba (Graduated, University of Pennsylvania, summer 2003). *Respect, struggle and change: Examining the agency of African American female adolescents in city schools*. Assistant Professor, Temple University. Philadelphia, PA.
22. Dale McCreedy (Graduated, University of Pennsylvania, summer 2003). *Negotiating meaning and identity in science teaching and learning through participation in an informal science program for girls*. Program Director, Franklin Institute Science Museum. Philadelphia, PA.

23. Beth Wassell (Graduated, spring 2004, University of Pennsylvania) *On becoming an urban teacher: Exploring agency through the journey of student to first year practitioner*. Assistant professor, Rowan University, Glassboro, NJ.
24. Penny Gilmer (Graduated fall 2004 Curtin University). *Transforming tertiary level teaching of biochemistry through action research: Utilizing collaborative learning and technology*. Professor, Florida State University. Tallahassee, FL.
25. Sarah-Kate LaVan (Graduated, summer 2004, University of Pennsylvania). *Cogenerating fluency in urban science classrooms*. Assistant Professor, Temple University. Philadelphia, PA.
26. Sonya Martin (Graduated, spring 2005, Curtin University) *The social and cultural dimensions of successful teaching and learning of science in an urban high school*. Assistant Professor, Queens College, CUNY, Flushing, NY.
27. Kimberley Lebak (Graduated, spring 2005, University of Pennsylvania) *Connecting outdoor field experiences to classroom learning: A qualitative study of the participation of students and teachers in learning science*. Assistant Professor, The Richard Stockton College of New Jersey, Pomona, NJ.
28. Stacy Olitsky (Graduated, University of Pennsylvania, summer 2005). *What are the differences in teaching practices and student learning when science teachers teach subjects that are "within-field/out-of-field"?* Post-doctoral fellow, University of Pennsylvania & La Salle University, Philadelphia, PA.
29. Linda Loman (Graduated, Curtin University, fall 2005) *The impact of cogenerative dialogue on learning and teaching practices in and out of field in an 8<sup>th</sup> grade physical science classroom*. Science Teacher, Glenwood Springs High School, CO.
30. Tricia Kress (Spring 2006). *Integrating technology into the urban high school English curriculum: Understanding the re/construction of teacher/computer-user identity via the structure/agency dialectic*. Graduate Center of CUNY.
31. Rupam Saran (Spring 2006). *Asian Indian students: Achievement, schooling, and positive stereotyping*. Graduate Center of CUNY.
32. Jennifer Adams (Projected spring 2006). *Using a museum to educate urban teachers to teach science*. Graduate Center of CUNY.
33. Edward Lehner (Projected fall 2006). *Cogenerative dialogues and coteaching as fields for transforming urban teaching and learning*. Graduate Center of CUNY.
34. Cristobal Carambo (Projected summer 2006. Curtin University). *Inquiry and the development of scientific fluency in the urban high school*. Science teacher, Science Engineering and Mathematics Academy at University City High School, Philadelphia. PA.
35. Gillian Bayne (Projected spring 2007). *Cogenerative dialogues: Aligning culture and expanding student roles inside and outside of the urban science classroom*. Graduate Center of CUNY.
36. Eileen Baker (Projected spring 2007). *Improving the teaching and learning of science in junior high school: Achieving parity through cogenerative dialogues*. Graduate Center of CUNY.
37. Chris Emdin (Projected spring 2007). *Cogenerative dialogues in the science classroom as a seedbed for the emergence of a cosmopolitan school: Coteaching and cogenerative dialogues in an inner city school*. Graduate Center of CUNY.
38. Femi Otulaja (Projected spring 2008). Graduate Center of CUNY.
39. Wesley Pitts (Projected spring 2008). Graduate Center of CUNY.