College or University	Site	Location	Community Center Type	Years Hosting Fifth Dimension	Age of Child Participants	Dominant Language	Culture or Ethnicity	SES
University of California at San Diego (UCSD)	Solana Boys and Girls Club	Solana Beach, Calif.	Boys and Girls Club of America	1986 to present	Five to eleven	English	Anglo	Middle- and working-class
UCSD	La Clase Mágica	La Colonia, Solana Beach, Calif.	Catholic mission	1989 to present	All ages, adults	Spanish, bilingual	Mexicano	Working-class
California State University at San Marcos (CSUSM)	Escondido Boys and Girls Club (Baker branch)	Escondido, Calif.	Boys and Girls Club of America	Seven	Six to twelve	English	Anglo, Latino	Lower-middle- and working- class
Michigan State University (MSU)	Cristo Rey Community Center	North Lansing, Mich.	Catholic Charities Community Center	Four	Six to twelve	Spanish, bilingual	Latino	Working-class
Erikson Institute	Le Claire Community Center	Chicago, Ill.	State-funded school-age day care	Five	Five to six	African American English	African American	Working-class

Table 1.1 Fifth Dimension Sites of Implementation

University of New Orleans (UNO)	Claiborne Elementary School	New Orleans, La.	Elementary school after- school program	Four	Six to eleven	Black English dialect, English	African American	Middle- and working-class
Appalachian State University (ASU)	ASU and several elementary schools	Boone, N.C.	Elementary school after- school program	1991 to present	Seven to twelve	English	Anglo	Middle- and working-class
Whittier College	Boys and Girls Club of Whittier	Whittier, Calif.	Boys and Girls Club of America	1993 to present	Six to twelve	English, Spanish	Chicano, Mexicano	Working-class
University of California at Santa Barbara (UCSB)	Boys and Girls Club	Goleta <i>,</i> Calif.	Boys and Girls Club of America	1994 to present	Five to twelve	Spanish, English	Mexicano, Anglo, African American Asian origir	Working-class

Figure 2.1 A Bronfenbrenner-Style Picture of a Child and Undergraduate in a Fifth Dimension Activity System



Figure 4.1 A Bronfenbrenner-Style Picture of Levels of Context of the Fifth Dimension and Sources of Data Available at Each Level



Category	Content and Skill Evaluated	Site	Advantage from Fifth Dimension?
Computer literacy	Paper-and-pencil computer knowledge test	San Marcos– Escondido; New Orleans; Chicago	Yes, especially in writing
	Evaluation of memory for com- puter terminology	San Marcos– Escondido San Marcos–	Yes
	Hands-on com- puter-use profi- ciency merit badge	Escondido	
Mathematical understanding and problem- solving	Understanding arithmetic word problems	Santa Barbara; North Carolina	Yes
U	Puzzle tanks math strategy and problem-solving game	San Marcos– Escondido; Santa Barbara; North Carolina	Yes
	Statewide school achievement tests (math)	North Carolina	Yes
Reading, writing, and grammar skills	The following- procedures task	North Carolina	Yes
	Reading compre- hension of novel game instructions	North Carolina; San Marcos– Escondido	Yes
	Statewide school achievement tests (reading)	North Carolina	Yes
	Grammar games	San Marcos– Escondido	Yes

Table 5.1Fifth Dimension Studies on the Cognitive and Academic
Skills of Participating Children

Table 5.2 Correct Recognition of Presented Words (Proportion Correct by Type)

	Computer	Fifth		
	Words	Dimension Words	Neutral Words	Overall
Novices	.61	.65	.76	.67
Experts	.70	.71	.62	.67

Table 5.3Correct Cloze Completions (Out of Forty-Four) of North
Carolina Participants

	Extensive	Limited	Control
	Participation	Participation	(No Participation)
Pretest	24.14	23.95	24.38
Post-test	31.05	25.67	25.86

Figure 7.1 Changes in Undergraduates' Understanding of Key Course Concepts—Study 2, UCSD



Source: Authors' compilation.

Notes: Values represent changes in the completeness and complexity of undergraduates' understandings of the concepts of teaching, learning, and culture, based on coded responses to open-response requests for definitions at the beginning and end of the chapter.

	Pretest	Percentage	Post-Test	Percentage
Question	Categories	of Total	Categories	of Total
1. What is teaching?	Telling	82	Creating contexts for	
			assisted learning	92
	Helping	18	Transmission of	
			information	8
2. What do teachers do?	Transmit knowledge	80	Develop activities for social	
			interaction and ZPD assessment	90
	Facilitate learning	20	Set goals and outcomes	10
3. How do teachers attain	Internal and external		ZPD assessment and interaction	
goals?	organizational control	82	with students and community	93
	Caring behavior	18	State curriculum	7
4. What is learning?	Passive reception	70	A socially active person	94
	Active participation	30	Knowledge absorption	6
5. How do children learn?	Passive reception	82	By social construction of meaning	84
	Active participation	18	By observation and imitation	16
6. Interaction with other	Adult		Adult	
children and adults	Adult control		Respond to guidance	82
	Behavior	80	Behave dependently	12
	Relaxed behavior	20	Act intimidated	6
	Children		Children	
	Enjoy each other	55	Increased capacity	70
	Seek approval	25	Peer equality	30
	Peer equality	20		

Table 7.1 Pretest and Post-Test Results on Attitudes and Beliefs Survey—Study 1, ASU

7. Describe what a good	Passive roles	75	Maintain active participation	95
learner does during a	Active Roles	25	Absorb and recite information	5
learning activity				
8. Describe what a poor	Child deficit	90	Does not participate	100
learner does during a	Teaching method and parent	10		
learning activity				
9. Attention to learning	Activity dependent	70	Task dependent	93
tasks	Short attention span	30	Handicap dependent	7
10. How do children respond	Success:		Success:	
to success and failure in	Self-esteem is heightened	20	Increased participation	85
learning?	Desire to share success		Greater achievement	15
	with others	10		
	Increase in desire to learn	40		
	Sense of achievement	30		
	Failure:		Failure:	
	Self-esteem is lowered	20	Withdraw participation	100
	Easily discouraged	40		
	Frustrated	15		
	Tries harder	25		

Fall Ser		emester ^a	emester ^a		Spring Semester		
Undergraduates	Beginning	Middle	End	Beginning	Middle	End	Sessions
Class members Janice Christie Marta Jennifer	3	2	3	3	2	3	6 2 6 2
Service team newcomers Susie Nadia Suzanne	3	4	3	3	2	2	6 6 5
Service team old-timers Claudia Nicole Sonia	3	2	3	3	2	4	6 4 7
Total sessions	9	8	9	9	6	9	50

Table 7.2Distribution of Sessions Videotaped, 1997 to 1998—Study 3a,
Whittier

Number of Sessions per Undergraduate

Source: Authors' compilation.

^a Beginning-of-semester sessions were videotaped for each student once a week during the first three weeks of the twelve-week semester. End-of-semester sessions were documented one per week during the semester's last three weeks. Midsemester sessions were routinely recorded once during the fifth or sixth weeks of the semester.

Table 7.3Type of Assistance Given by Undergraduates: Study 3b,
Whittier (Percentage of Total Attempts in Three Sessions)

Undergraduate			
Experience	Instructing	Guiding	Combined or Unclear
First semester of			
participation	44%	24%	32%
One year later	18	59	23

Table 7.3Type of Assistance Given by Undergraduates: Study 3b,
Whittier (Percentage of Total Attempts in Three Sessions)

Undergraduate			
Experience	Instructing	Guiding	Combined or Unclear
First semester of			
participation	44%	24%	32%
One year later	18	59	23

Table 7.5Undergraduates' Use of Artifacts: Study 3b, Whittier
(Percentage of Time in Use Across Three Sessions)

Undergraduate				Variable
Experience	Undergraduate	Child	Shared	or Unclear
First semester of				
participation	57%	19%	12%	12%
One year later	28	36	26	10

Figure 8.1 Diffusion Pattern of Fifth Dimension Projects to Universities, 1996 to 2002



Source: Based on Nocon (2004, 271, figure 2).

California sites: UCSD, University of California, San Diego; UCSB, University of California, Santa Barbara; UCSC, University of California, Santa Cruz; UCLA, University of California, Los Angeles; UCI, University of California, Irvine; UCR, University of California, Riverside; UCSF, University of California, San Francisco; UCB, University of California, Berkeley; UCD, University of California, Davis; SFSU, San Francisco State University; WC, Whittier College; CSUSM, California State University, San Marcos; CSUF, California State University, Fresno; SDSU, San Diego State University; MCC, Mira Costa College, Oceanside; SWC, Southwestern College, San Diego; CSULB, California State University, Long Beach; CSUS, California State University, Sacramento.

Other U.S. sites: ASU, Appalachian State University, North Carolina; EC, Elon College, North Carolina; UD, University of Delaware; UMI, University of Miami, Florida; UCD, University of Colorado, Denver.

European sites: BTH, Blekinge Institute of Technology, Ronneby, Sweden; UU, Umeå University, Sweden; UOK, Oulu University, Kajaani, Finland; UA, Archangel University, Russia; UP, University of Petrovsk, Russia; KUA, University of Copenhagen, Denmark; RU, Roskilde University, Denmark; V, Vilnius University, Lithuania; UAB, Autonomous University of Barcelona, Spain.

Sites in the Americas: BUAP, Autonomous University of Puebla, Mexico; UNAM, National Autonomous University of Mexico; USP, University of São Paolo, Brazil.