

The Effectiveness of an Infant Mentoring Project—Preliminary Findings

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Introduction

This paper will describe an infant mentoring project designed to improve the quality of infant programs in south central Pennsylvania focusing only on the pre-test data collection phase. The full report will be completed in early 2001. However, there were so many significant relationships discovered in the pre-test data that it warrants a closer look at the present time.

There has been concern within several advocacy and governmental circles that the usual training offered through workshops may not be an effective means for training. These groups are looking for other effective ways of providing training. Mentoring is being explored because of its targeted nature in delivering training to caregivers. The project that will be described is being conducted during the later half of 2000 and the beginning of 2001. The results presented in this paper are part of the pre-test data collection phase (summer 2000) of this mentoring project. Post-test data collection will occur the early part of 2001. The actual mentoring intervention is occurring from September through December 2000.

Mentoring in childcare has been documented in the literature for the past 10-15 years (Breunig & Bellm, 1996; Fenichel, 1992). It has been demonstrated to be an effective mode of training. However, in the majority of studies conducted there are few, if any, demonstrations that utilize a randomized trial design. Many studies track the progress of the intervention group, some studies have comparison groups, but none have employed a truly randomized design. This paper will describe the pre-test data collected as part of a study that has employed a truly randomized design.

The majority of research (Clarke-Stewart, 1987; Goelman & Pence, 1987; Howes, 1987; Phillips, 1987; Kontos & Fiene, 1987; Galinsky, Howes, Kontos, & Shinn, 1994; Scarr, Eisenberg, & Deater-Deckard, 1994; Iutcovich, Fiene, Johnson, Koppel, & Langan, 1997; Helburn, 1995; Fiene, 1995, 1996; Jorde-Bloom, 1988; Love, Schochet & Meckstroth, 1986) completed on early childhood quality has focused on preschool programs with infant toddler programs as more of an add on than the focus of the research. This research study focus is on the first three years of life. All the centers and the classrooms reported upon in this study are from birth to less than three years of age. It was felt that a real focus of this research was the need to better inform the early childhood field about infant/toddler care.

This report is organized as follows: a methodology section briefly describes the sample selected with basic demographic information on directors, caregivers and the programs. This is followed by a results section that gives average scores for each of the assessment tools utilized in this study to measure quality: the ITERS—Infant Toddler Environment Rating Scale, the Arnett Caregiver Observation Scale, the Bloom Organizational Climate Scale, and the KIDI—Knowledge of Infant Development Inventory. The last section of the results depicts correlations amongst several demographic variables and the assessment tools to measure quality. This section is finally followed with a discussion section.

Methodology

This study involved 49 caregivers from 27 sites in south central Pennsylvania. All programs were childcare centers licensed by the Department of Public Welfare. Seven of the sites were accredited by the

National Association for the Education of Young Children. All the caregivers and programs are part of a larger study to demonstrate the effectiveness of a mentoring approach with infant/toddler caregivers. The results reported in this paper are the pre-test data collection phase of this larger study. These data are descriptive data because they represent the baseline data collection phase of the larger mentoring project.

Demographics—

The directors in the programs average age are 31 with a range from 24-53 years of age. They are predominantly Caucasian (81%) with 19% being minorities. Eight percent have associate degrees, with 78% having bachelor's degrees, and 14% having master's degrees. They have been employed as directors in their program for an average of 31 months with a range from 1 month to 120 months. Although the directors are fairly young, they have a good deal of experience being on the job an average of three years and are highly educated individuals. Their average pay is between \$20000-25000 per year.

The caregivers in the programs average age are 36 with a range from 18-68. They are predominantly Caucasian (77%) with 23% being minorities. Fifty-seven percent have high school diplomas, 16% have some college credits, 5% have CDA's, 16% have associate degrees, 5% have bachelor's degrees, and 2% have master's degrees. They have been employed as caregivers in their program for an average of 34 months with a range from 1 month to 153 months. They have worked in the early childhood field as caregivers for an average of 71 months with a range from 1 month to 312 months.

The average size of the centers is 98 children with 17 staff employed either full time or part time at the program. The average weekly fee for infant care is \$137.00 per week and for toddler care is \$124.00 per week. The majority of staff are employed at the centers for either less than 1 year or greater than 5 years.

Results

ITERS—Infant Toddler Environment Rating Scale—measures overall quality of the program

Total average score = 134 (just above the minimal level of 105)

Range =75-232

5 programs scored good or higher (175+)

12 programs scored between inadequate and minimal (35-105)

34 programs scored between minimal and good (105-174)

(Score of 35 = inadequate; 105 = minimal; 175 = good; 245 = excellent)

Individual item scores (averages):

(1=inadequate; 3=minimal; 5=good; 7=excellent)

1.Furnishings for routine care = 4.0

2.Use of furnishings for learning activities = 4.5

3.Furnishings for relaxation and comfort = 4.2

4.Room arrangement = 3.6 minimal

(what is not present—routine care areas conveniently arranged; areas for quiet and active play separated; young infants given space and materials to explore while protected from more mobile children).

5.Display for children = 4.0

6. Greeting/departing = 5.0 good
- 7. Meals/snacks = 3.5 minimal**
(what is not present—children fed separately or in very small groups; meals/snacks are relaxed; children encouraged to feed selves; menus posted for parents; caregiver talks with children and provides a pleasant social time; caregiver sits with children and uses feeding time to help children learn; staff cooperate with parents to establish good food habits).
8. Nap = 4.4
- 9. Diapering/toileting = 3.2 minimal**
(what is not present—diapering done near source of hot water; adaptive equipment promotes self-help; caregiver works with parents to toilet train toddlers; pleasant tone between adult and child; child sized toilet seat used in place of potty chair; diapering/toileting used as time to talk with and relate warmly to children; parents informed about child's diapering/toileting during day).
- 10. Personal grooming = 2.9 minimal**
(what is not present—care given to children's appearance (faces washed, cleaned up after messy play, hair combed with own comb, bibs used if needed); self help encouraged in personal grooming as children are able (child cooperates in changing clothes, encouraged to wash own hands); personal care activities made more acceptable to children (caregiver sings songs, gently washes baby's face and avoids making baby cry)).
- 11. Health practice = 2.9 minimal**
(what is not present—accommodations made to meet sick child's needs; caregiver is good model of health practices; health information provided for parents; health-related books, pictures, and/or games used with toddlers; surfaces of room and equipment easy to keep clean).
12. Health policy = 5.4 good
13. Safety practice = 4.2
14. Safety policy = 5.2 good
15. Informal use of language = 4.8
- 16. Books and pictures = 3.4 minimal**
(what is not present—at least 12 infant/toddler books accessible daily for much of the day; caregiver talks about pictures, reads books, or says nursery rhymes daily with individuals or very small groups of interested children; cozy book area set up for toddlers to use independently).
17. Eye-hand coordination = 4.4
18. Active physical play = 4.0
- 19. Art = 3.1 minimal**
(what is not present—children 12-18 months of age offered some art material 3 times a week; children over 18 months of age offered some art material daily; children's art work displayed on child's eye level in play space; individual expression encouraged; clean up planned to be easy so children can help; caregiver talks to child about art work).
- 20. Music and movement = 2.7 minimal**
(what is not present—caregiver informally sings/chants daily with children; other musical activities done with adult daily; many noise-making and musical toys available daily; children encouraged to dance, clap, or sing along; different types of music used regularly; music toys rotated to provide variety).

- 21.Blocks = 3.5 minimal**
(what is not present—variety of blocks and accessories accessible daily for much of the day; blocks and accessories sorted by type; space used for toddler’s block play out of traffic, with steady surface; blocks requiring caregiver supervision brought out at least 3 times a week for older toddlers; caregiver talks with children about their block play).
- 22.Pretend play = 3.9 minimal**
(what is not present—variety of age-appropriate pretend play materials accessible daily, indoors; props focus on what toddlers see in real life; some child-sized play furniture for toddlers; materials accessible to children for both indoor and outdoor use; materials well organized for independent use; caregiver pretends with children in play).
- 23.Sand and water play = 2.4 minimal**
(what is not present—sand or water play at least once a week; variety of toys for sand/water play; caregiver talks with children about textures, wet/dryness; describes children’s activities).
- 24.Cultural awareness = 2.4 minimal**
(what is not present—cultural awareness evidenced by generous inclusion of multi-racial books and dolls for children to use; pictures on child’s eye level that show people of various ages from infancy through old age; non-sexist pictures displayed of men and women, boys and girls in similar work and play roles; cultural awareness shown in a variety of activities).
- 25.Peer interaction = 4.7
- 26.Adult-child interaction = 4.3
- 27.Discipline = 4.5
- 28.Schedule of daily activities = 4.1
- 29.Supervision of daily activities = 4.0
- 30.Staff cooperation = 3.9 minimal**
(what is not present—child related information is communicated daily among staff (information about routines, child’s mood, play activities); time for staff communication provided; staff interactions are positive and add a feeling of warmth and support; responsibilities are divided so that both care and play activities are handled smoothly).
- 31.Provisions for exceptional children = 5.0 good
- 32.Adult personal needs = 3.7 minimal**
(what is not present—adult lounge area available; convenient storage for personal belongings with security provisions; morning, afternoon, and lunch breaks provided; facilities provided for staff meals/snacks).
- 33.Opportunities for professional development = 3.3 minimal**
(what is not present—good professional library, current materials on wide variety of infant/toddler subjects readily available; more than one staff meeting a month; monthly in-service training includes workshops and courses available in community as well as in-house; paid planning and meeting time; a formal observation of caregivers in each room done at least once yearly and information used in planning staff development).
- 34.Adult meeting area = 4.8
- 35.Provisions for parents = 5.1 good

All the items that scored at a minimal level (items 4, 7, 9, 10, 11, 16, 19, 20, 21, 22, 23, 24, 30, 32, 33) are areas of concern and where additional training is needed. The focus of the mentoring intervention will be in these above areas. There are several items that were rated at a good level (items 6, 12, 14, 31, 35) and should be used as a basis for the overall improvement of the program. Use the strengths of the program to get at some of the weaknesses. However, on the average the number of items at the minimal level far out weigh the number of items at the good level.

Arnett Caregiver Observation Scale—measures quality of caregiver interactions w/infants

Total average score = 30

Range = 1-51

Score of 0 = Negative; 30 = neutral; 59 = very positive

Individual item scores (averages):

(1 = never; 2 = few instances; 3 = many instances; 4 = consistently)

1.Speaks warmly to children =	3.0
2.Seems critical of the children =	1.1
3.Listens attentively when children speak =	2.5
4.Places high value on obedience =	1.7
5.Excited about teaching =	2.9
6.Seems emotionally distant or detached from the children=	1.8
7.Seems to enjoy children =	3.0
8.When children misbehave, explains the reason for the rule they are breaking =	2.1
9.Encourages the children to try different experiences =	2.1
10.Doesn't try to exercise much control over the children =	1.6
11.Speaks with irritation or hostility to children =	1.3
12.Seems enthusiastic about the children's activities and efforts =	2.7
13.Threatens children in trying to control them =	1.2
14.Spends considerable time in activity not involving interaction with the children =	1.5
15.Pays positive attention to the children as individuals =	2.7
16.Negative physical contact =	1.1
17.Reprimands children when they misbehave =	2.3
18.Routine or mechanized teaching style =	1.6

19.Talks to the children on a level they can understand =	2.6
20.Punishes the children without explanation =	1.1
21.Exercises firmness when necessary =	2.4
22.Encourages children to exhibit prosocial behavior =	2.1
23.Finds fault easily with the children =	1.0
24.Positive physical contact=	2.6
25.Seems interested in the children’s activities =	2.7
26.Seems to prohibit many of the things the children want to do =	1.6
27.Sincere in tone of voice and manner =	3.4
28.Supervises the children closely =	2.5
29.Expects children to exercise self-control =	2.4
30.When talking to the children, kneels, bends, or sits at their level =	2.8
31.Seems unnecessarily harsh when scolding or prohibiting children =	1.2

Items 8, 9, and 22 should be at a much higher frequency level than reported. These are items that subtly make a difference in the overall quality of a program. These are areas that will be targeted by the mentoring intervention. All other items are within an acceptable range.

Bloom Organizational Climate Scale—quality of the center organizational environment

Total average score = 75

Range = 0-145

Score of 0 = not like my ideal at all; 75 = somewhat like my ideal; 150 = is my ideal

Individual item scores (averages):

**How close is your present position to your idea of a perfect job?
(1=not like my ideal at all; 3=somewhat like my ideal; 5=is my ideal)**

1.Relationship with your co-workers =	4.3
2.Opportunities to learn and grow =	3.8
3.Relationship with your supervisor =	4.1
4.Clarity in your role and responsibilities =	4.0
5.Fairness of pay and promotion opportunities =	3.1

6.Decision making structure of the center =	3.2
7.Agreement among staff on program goals =	3.6
8.Task orientation, program efficiency =	3.8
9.Equipment, materials, and the physical setting =	3.8
10.Innovativeness and creative problem solving =	3.8

**How would you describe your relationship with your co-workers?
(1=strongly disagree; 3=neither agree or disagree; 5=strongly agree)**

11.Cooperative and friendly =	4.5
12.Competitive =	2.6
13.People are reluctant to express their feelings =	2.7
14.Pay and benefits are equitably distributed =	3.3
15.Some people are paid more than they are worth =	2.9
16.Raises are based on favoritism =	1.9
17.Steps are being taken to increase pay and benefits =	2.6
18.Pay is fair compared to what other centers pay =	3.7
19.This place is a revolving door, there is no job security =	1.9
20.People are taken advantage of in terms of what they are paid =	2.8
21.Chances for promotion are good =	2.8

Items 17 and 21 are two areas that appear to be of concern for staff related to pay, benefits and the chance for promotions. These are items that impact on staff turnover and although are not necessarily targeted for the mentoring intervention will be monitored nonetheless.

**How are decisions made at your center most of the time?
(1=very unlike my center; 3=neither like or unlike; 5=very much like my center)**

22.People are encouraged to be self-sufficient in making decisions =	3.5
23.The director likes to make most of the decisions =	2.8
24.People don't feel free to express their opinions =	2.5
25.Everyone provides input on the content of staff meetings =	3.2
26.Conformity is the name of the game here =	2.7
27.There are scheduled staff meetings at least twice a month =	2.3

28. People provide input but decisions have already been made =	3.2
29. Teachers make decisions about things that directly affect them =	3.2
30. Teachers are seldom asked their opinion on issues =	2.5
31. Teachers are very helpful to new staff =	4.4
32. Good team spirit =	3.8
33. People are generally frank and candid =	3.2
34. Morale is low =	2.5
35. People socialize outside of work =	3.2
36. People feel isolated =	2.2
37. People complain a lot =	3.0

Staff meetings appear to be an area that needs addressing. This is an important vehicle for communication amongst staff.

**How much is your supervisor like any of the following?
(1=very unlike my supervisor; 3=neither like or unlike; 5=very much like my supervisor)**

38. Provides support and helpful feedback =	4.2
39. Hard to please =	2.0
40. Unavailable =	2.2
41. Conducts fair evaluations of staff =	3.5
42. Too critical =	2.1
43. Sets high but realistic standards =	3.5
44. Delegates too much =	2.2
45. Compliments and praises staff =	4.0
46. Talks down to staff =	1.8
47. Very knowledgeable =	4.3

**How would you describe the pay and promotion system at your center?
(1=very unlike my center; 3=neither like or unlike; 5=very much like my center)**

48. Salaries are fair considering the center's income =	3.3
49. Promotions are not handled fairly =	2.5
50. The director values everyone's input for major decisions =	3.3

How would you describe the goals of your program?

(1=very unlike my program; 3=neither like or unlike; 5=very much like my program)

51.Goals are left vague =	2.1
52.Everyone agrees on program goals =	3.4
53.People know how to compromise =	3.7
54.Center does not have a written philosophy =	2.0
55.Staff share a common vision of what the center should be like =	3.7
56.The staff seldom talk about educational objectives =	2.2
57.Staff are committed to program goals =	3.7
58.Staff are not unified in their philosophy =	2.5
59.Staff disagree on what should be taught to children =	2.0
60.Program has well defined educational objectives =	3.9

Does your center....

(Percent who answered “yes”?)

61.Provide on site staff development workshops =	64%
62.Encourage staff to share resources with one another =	88%
63.Provide released time to attend conferences =	64%
64.Provide released time to visit other schools =	33%
65.Provide tuition reimbursement to take college courses =	52%
66.Provide formal guidance for professional advancement =	44%
67.Have a library of professional books for staff to use =	88%
68.Subscribe to several educational journals and magazines =	52%
69.Implement a career ladder for professional advancement =	21%
70.Encourage staff to learn new skills =	94%
71.Distribute a parents’ handbook detailing policies and procedures =	94%
72.Have a staff manual outlining staff policies =	88%
73.Provide written contracts for employees =	67%

74. Have written job descriptions for each position = 79%
75. Distributes a monthly newsletter to parents = 76%

There are several items that relate to professional development that need to be addressed in this section. A more formalized structure needs to be set up for staff to deal with professional advancement and a career ladder.

Knowledge of Infant Development (KIDI)—measures caregivers knowledge of infants

Total average score = 15 out of 19 questions answered correctly

Range =10-19 questions answered correctly

Individual items answered correctly (percents):
(Individual had to agree with statement, suggest younger or older for each item.)

1. Most babies can sit on the floor without falling over by 7 months = 91%
2. A 6-month old will respond to someone differently if the person is happy or upset = 75%
3. Most 2-year-olds know the difference between make-believe and true stories on TV = 94%
4. Infants usually are walking by about 12 months of age = 88%
5. An 8 month old acts differently with a familiar person then with someone not seen before = 91%
6. A baby is about 7 months old before he/she can reach for and grab things = 72%
7. A two year old is able to reason logically, much like an adult would = 94%
8. A one year old knows right from wrong = 88%
9. A 3 month old often will smile when he/she sees an adult's face = 81%
10. Most children are ready to be toilet trained by one year of age = 97%
- 11. An infant begins to respond to his/her name at 10 months = 53%**
12. Babies begin to laugh at things around 4 months = 69%
13. Six month olds know what "no" means = 91%
- 14. A 4 month old lying on his/her stomach starts to lift his/her head = 31%**
15. Babbling begins around 5 months = 69%
16. Eighteen month olds often cooperate and share when they play together = 78%
- 17. An infant of 12 months can remember toys he/she has watched being hidden = 63%**
18. Babies usually say their first real word at 6 months = 75%
19. Infants will avoid high places, like stairs, by 6 months of age = 78%

Items 11, 14, and 17 were answered incorrectly a significant number of times. This is an area of concern because without a thorough knowledge of infant development it puts the caregiver at a distinct disadvantage in providing developmentally appropriate care to the children who they have responsibility. This will be a targeted area within the mentoring intervention.

All of the quality measures demonstrate many areas that need improvement. The ITERS has the most significant number of items that are at a minimal level and need to be improved. The Arnett and the KIDI have several as well but are not as significant as the ITERS. The Bloom scale has the fewest number of items but they are all clustered in the professional development and pay areas that are significant in helping to prevent turnover that appears to be a problem also. The issue of turnover will be addressed in the next section showing some interesting relationships with other demographic variables.

The following section will present several correlational analyses that are of interest regarding the overall quality of the program, interactions amongst staff and children, organizational climate of the program, and selected demographic characteristics of the programs, directors and caregivers.

Correlations of demographics, ITERS, KIDI, Bloom, Arnett—

Correlations

		ITERSC	ARNETTC	KIDIC	BLOOMC
ITERSC	Pearson Correlation	1.000	.599**	.107	.368*
	Sig. (2-tailed)	.	.000	.568	.038
	N	49	45	31	32
ARNETTC	Pearson Correlation	.599**	1.000	.108	.507**
	Sig. (2-tailed)	.000	.	.578	.004
	N	45	46	29	30
KIDIC	Pearson Correlation	.107	.108	1.000	-.035
	Sig. (2-tailed)	.568	.578	.	.851
	N	31	29	32	32
BLOOMC	Pearson Correlation	.368*	.507**	-.035	1.000
	Sig. (2-tailed)	.038	.004	.851	.
	N	32	30	32	33

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

There is a very strong positive relationship between the ITERS and the Arnett Scales as well as with the Bloom and the Arnett and ITERS Scales. The overall quality of a program as measured by the ITERS correlates with caregiver behaviors and the overall organizational climate of a center correlates with caregiver behaviors and the overall quality of a program.

Relationship Between Childcare Income (Dir16) and Quality Measures:

Correlations

		ITERS	ARNETT	KIDI	BLOOM	DIR16
ITERS	Pearson Correlation	1.000	.599**	.107	.368*	.661**
	Sig. (2-tailed)	.	.000	.568	.038	.000
	N	49	45	31	32	37
ARNETT	Pearson Correlation	.599**	1.000	.108	.507**	.483**
	Sig. (2-tailed)	.000	.	.578	.004	.004
	N	45	46	29	30	34
KIDI	Pearson Correlation	.107	.108	1.000	-.035	.311
	Sig. (2-tailed)	.568	.578	.	.851	.130
	N	31	29	32	32	25
BLOOM	Pearson Correlation	.368*	.507**	-.035	1.000	.451*
	Sig. (2-tailed)	.038	.004	.851	.	.021
	N	32	30	32	33	26
DIR16	Pearson Correlation	.661**	.483**	.311	.451*	1.000
	Sig. (2-tailed)	.000	.004	.130	.021	.
	N	37	34	25	26	39

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

There are strong positive relationships amongst the director's income (DIR16) and the quality of the program (ITERS), the organizational climate of the program (Bloom), and the behaviors of the caregivers in the classroom (Arnett). This should not come as a surprise because this has been reported in the early childhood research literature previously. These results appear to hold up for infant toddler programs as well. This is a very important finding because without paying directors a decent wage will have an impact directly on the overall quality of the program. Along with this finding is the correlation between director's income and length of time on the job (turnover). The better-paid director's have less turnover than those who are not as well paid ($r = .38$; $p < .02$). Turnover is another significant variable that impacts the quality of the program.

In looking at these data more closely a very significant trend develops. For directors who are making \$30000 or more, these are the averages for the quality measures: ITERS = 159; Arnett = 40; Bloom = 110; KIDI = 16. For directors who are making \$25000 or less, these are the averages for the quality measures: ITERS = 115; Arnett = 20; Bloom = 54; KIDI = 13. These are significant differences between the two income groups related to the quality measures: ITERS $t = 4.60$, $p < .001$; Arnett $t = 4.70$; $p < .001$; Bloom $t = 2.62$, $p < .02$.

Relationship Between Education (EDUCD) and Quality Measures

Correlations

		ITERSC	ARNETTC	KIDIC	BLOOMC	EDUCD
ITERSC	Pearson Correlation	1.000	.599**	.107	.368*	.523*
	Sig. (2-tailed)	.	.000	.568	.038	.000
	N	49	45	31	32	46
ARNETTC	Pearson Correlation	.599**	1.000	.108	.507**	.195
	Sig. (2-tailed)	.000	.	.578	.004	.210
	N	45	46	29	30	43
KIDIC	Pearson Correlation	.107	.108	1.000	-.035	.282
	Sig. (2-tailed)	.568	.578	.	.851	.125
	N	31	29	32	32	31
BLOOMC	Pearson Correlation	.368*	.507**	-.035	1.000	.358*
	Sig. (2-tailed)	.038	.004	.851	.	.048
	N	32	30	32	33	31
EDUCD	Pearson Correlation	.523**	.195	.282	.358*	1.000
	Sig. (2-tailed)	.000	.210	.125	.048	.
	N	46	43	31	31	49

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

There is a strong positive relationship between the education of the director (EDUCD) and the overall quality of the program (ITERS) and the organizational climate of the center (Bloom). This is another area that has been well documented in the literature and is supported in this research related to infant and toddler programs as well. Also, the more education that the director has the less likely is the individual to leave her position ($r = .33$; $p < .05$).

When caregiver education was compared for degreed (associate, bachelor's and master's) individuals and compared to high school graduates the following results were obtained: degreed individuals—ITERS = 142; Arnett = 30; Bloom = 101; KIDI = 15 and for high school graduates—ITERS = 123; Arnett = 28; Bloom = 69; KIDI = 14. In comparing director education the differences are even greater. For director's with a master's degree: ITERS = 157; Arnett = 38; Bloom = 124; KIDI = 16. For

director's with a bachelor's degree, ITERS = 130; Arnett = 26; Bloom = 63; KIDI = 14. The differences between the two groups (bachelor's vs. master's degrees) on the quality measures are the following: ITERS $t = 2.13$, $p < .04$; Arnett $t = 1.95$; $p < .06$; Bloom $t = 3.87$, $p < .001$.

Relationship Between Accreditation (DIR3) and Quality Measures

Correlations

		ITERSC	ARNETTC	KIDIC	BLOOMC	DIR3
ITERSC	Pearson Correlation	1.000	.599**	.107	.368*	-.571**
	Sig. (2-tailed)	.	.000	.568	.038	.000
	N	49	45	31	32	40
ARNETTC	Pearson Correlation	.599**	1.000	.108	.507**	-.307
	Sig. (2-tailed)	.000	.	.578	.004	.065
	N	45	46	29	30	37
KIDIC	Pearson Correlation	.107	.108	1.000	-.035	-.243
	Sig. (2-tailed)	.568	.578	.	.851	.231
	N	31	29	32	32	26
BLOOMC	Pearson Correlation	.368*	.507**	-.035	1.000	-.162
	Sig. (2-tailed)	.038	.004	.851	.	.420
	N	32	30	32	33	27
DIR3	Pearson Correlation	-.571**	-.307	-.243	-.162	1.000
	Sig. (2-tailed)	.000	.065	.231	.420	.
	N	40	37	26	27	42

** · Correlation is significant at the 0.01 level (2-tailed).

* · Correlation is significant at the 0.05 level (2-tailed).

There is a direct relationship between a program being accredited and the overall quality of the program. Again this is not a surprise because accreditation has clearly been linked to the overall quality of programs in several studies. These results hold for infant toddler programs as well. In looking at the data more closely, the results are significantly different for the accredited versus the non-accredited programs. Accredited programs quality scores were the following: ITERS = 159; Arnett = 34; Bloom 83; KIDI = 15. For the non-accredited programs: ITERS = 119; Arnett = 25; Bloom 75; KIDI = 14. The differences between the two groups (accredited vs non-accredited) on the quality measures: ITERS $t = 4.58$, $p < .001$; Arnett $t = 2.16$, $p < .04$.

From a public policy standpoint, this is clearly an area where many changes can occur. Encouraging accreditation and building incentives for this to occur are public policy initiatives that state governments can easily accomplish. Also, having fiscal incentives for those programs that have attained accreditation is another important public policy initiative. Although the mentoring intervention's focus is not on accreditation, all aspects of the mentoring process should assist programs that are interested in attaining accreditation.

The last correlation to analyze is the relationship between the quality measures and the experience of the director. This is a particular variable that has been demonstrated in the research literature to have an impact on quality. The following table on the next page clearly shows that this also holds for infant and toddler programs as well.

Relationship Between Experience (DIR20/21) and Quality Measures

Correlations

		ITERSC	ARNETTC	KIDIC	BLOOMC	DIR20	DIR21
ITERSC	Pearson Correlation	1.000	.599**	.107	.368*	.308	.279
	Sig. (2-tailed)	.	.000	.568	.038	.053	.081
	N	49	45	31	32	40	40
ARNETTC	Pearson Correlation	.599**	1.000	.108	.507**	.409*	.147
	Sig. (2-tailed)	.000	.	.578	.004	.012	.386
	N	45	46	29	30	37	37
KIDIC	Pearson Correlation	.107	.108	1.000	-.035	.303	.210
	Sig. (2-tailed)	.568	.578	.	.851	.133	.303
	N	31	29	32	32	26	26
BLOOMC	Pearson Correlation	.368*	.507**	-.035	1.000	.306	.421*
	Sig. (2-tailed)	.038	.004	.851	.	.120	.029
	N	32	30	32	33	27	27
DIR20	Pearson Correlation	.308	.409*	.303	.306	1.000	-.168
	Sig. (2-tailed)	.053	.012	.133	.120	.	.289
	N	40	37	26	27	42	42
DIR21	Pearson Correlation	.279	.147	.210	.421*	-.168	1.000
	Sig. (2-tailed)	.081	.386	.303	.029	.289	.
	N	40	37	26	27	42	42

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

There are several interesting relationships presented here. There are significant relationships between length of employment (DIR20) and the Arnett and overall experience in the field (DIR21) with the Bloom. But there are clear trends in the data with the ITERS and both length of employment and experience in the field.

An important trend to keep in mind in looking at all of the above results is that these items all group together. One particular item does not appear to be more significant than the other but they all appear to have an added effect when it comes to a quality program. This will be discussed in the next section of this paper.

Discussion

These data were reported because of their significance. Although the full purpose of this project will not be reported until the Spring 2001 when all the post-test data are collected on the protégés, we felt it important to report on the pre-test data relationships because these data help to support many other findings in the early childhood research literature (Galinsky, Howes, Kontos, & Shinn, 1994; Helburn, 1995; Iutovich, Fiene, Johnson, Koppel, & Langan, 1997; Scarr, Eisenberg & Deater-Deckard, 1994) and shed new light on other not previously reported research findings.

As part of the analyses performed and reported in the previous section, there was interest to see if a profile could be developed of the really high quality programs. In order to complete this type of profiling, a sorting process of the top 25% (quartile) and the bottom 25% (quartile) was completed. The ITERS was used as the quality sort variable in determining the two groups (top = 157 and above; bottom = 110 and

below). The differences between the top quartile and the bottom quartile were significant on the Arnett and the Bloom. With the top quartile, the Arnett (average score = 39) and the Bloom (average score = 95) average scores were practically twice the rate as for the lowest quartile (Arnett = 20 and Bloom = 56). The profile for this top quartile is delineated in the next paragraph.

If there were a prescription for the best setting for infants, it would look something like the following: experienced staff who have been at the program a long period of time, highly educated and trained staff with the director probably having a master's degree in early childhood and state teaching certification; a director that is paid at least \$30,000; staff that are paid at least \$25,000; and the program is accredited.

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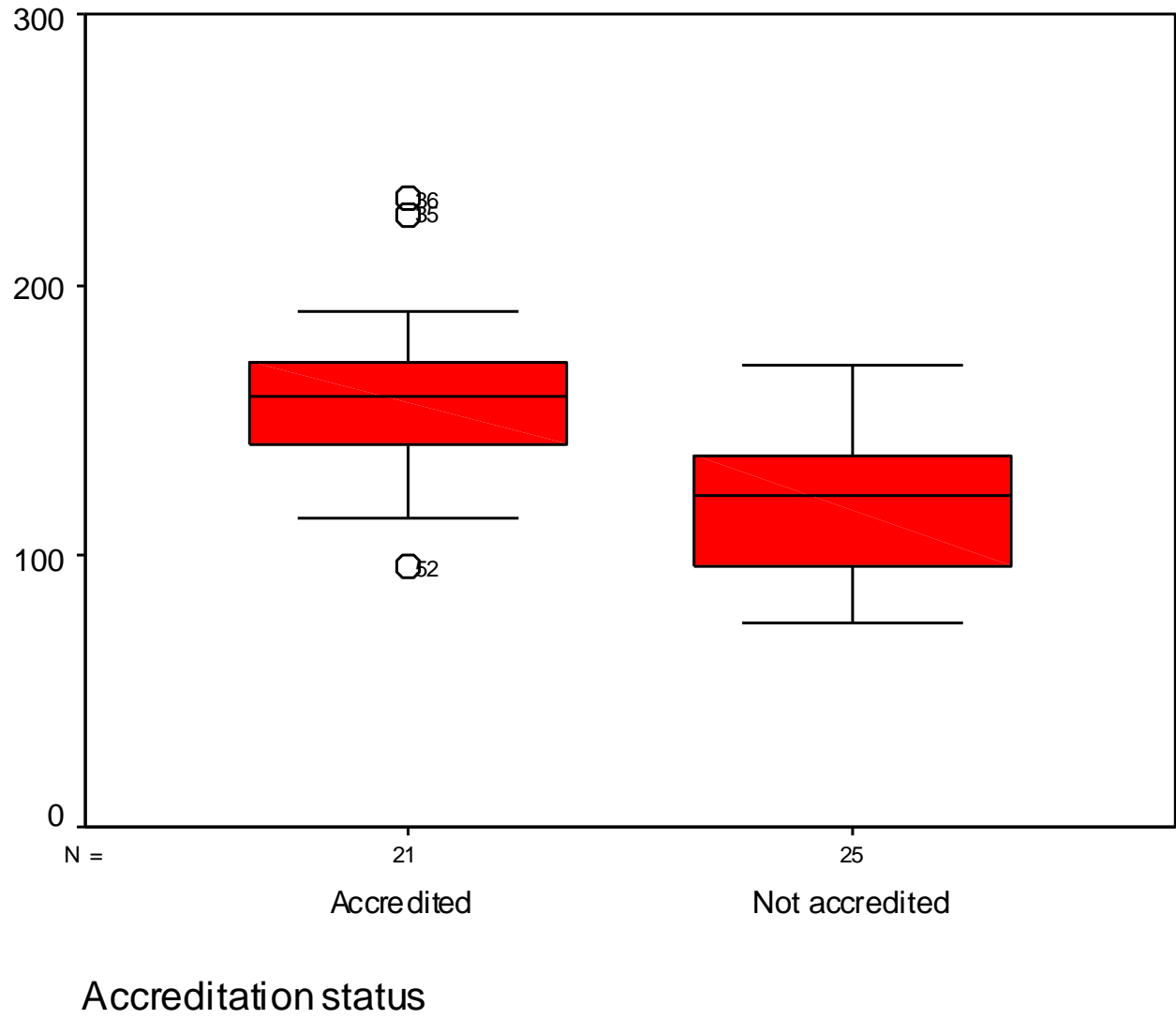
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Comparison of Accredited and Non-Accredited Programs



Comparison of Education Levels

