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ABSTRACT

This paper presents the results of a 3-year study that examined the efficacy of using the National Association for the Education of Young Children's (NAEYC) "Developmentally Appropriate Practices" (DAP) guidebook for assessment purposes. It surveyed 49 kindergarten and primary grade teachers and 123 graduate education students enrolled in early childhood graduate courses, using the 23-item and 37-item appropriate-inappropriate criteria for kindergarten and primary teachers, respectively, from the DAP guidebook. The results indicated that the DAP has little value for use as a self-assessment tool, due to ambiguity in the organization and wording of the DAP items. (Contains 15 references.) (MDM)

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Using Developmentally Appropriate Practice (1987) for Teacher Self-Assessment and Attitudinal Congruence: Summative Results

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Abstract

The use of NAEYC's Developmentally Appropriate Practice (1987) for self-assessment was investigated. Verbatim text from DAP was used as copy for two instruments, one for teachers of 4- and 5-year olds and one for the primary grades. Data were collected over a three year period. Initial analysis indicated promise for the instruments as measures of desired attitude change. Reliability measures were also strong, whereas tests for validity indicated one general factor, thereby minimizing the value of the research paradigm. Results indicate possible ambiguity in the organization and/or wording of the original DAP text.

Using Developmentally Appropriate Practice (1987) for Teacher Self-Assessment and Attitudinal Congruence: Summative Results

This paper presents the summative results of a 3-year study (Fore, 1992) to examine the efficacy of using NAEYC's DAP for assessment purposes. While the initial publication of DAP in 1986, with subsequent revision and expansion in 1987, has spawned much research and comment (see references), the authors know of no other research paradigm that uses DAP in toto and verbatim.

Permission was secured from NAEYC to use DAP for research purposes. The 23- and 37-item paired "Appropriate - Inappropriate" criteria for kindergarten and primary teachers, respectively, were used verbatim as the source text of a survey instrument. To minimize response predisposition, the source document itself was not mentioned, but rather identified only as the "Early Childhood Practices Inventory." To minimize response set, the paired items were randomized for serial order and polarity. The hypothetical continuum between the "Appropriate - Inappropriate" polar end points was operationalized as a 7-point semantic differential-like field. The respondent was asked to read each pair and mark the blank that best indicated (a) where s/he would be, and (b) would like to be. The responses were placed on a separate response sheet, to which was appended a cover sheet with instructions as well as a second sheet with basic demographic questions for subsequent respondent profiling. (The instrument was piloted with ten respondents providing anecdotal information regarding the

instrument, the directions, and the process as a whole.)

Initial data source was K-3 teachers in five area elementary and primary schools, representing three separate school systems. Personal contact with each principal secured permission to request the assistance of K-3 faculty with the survey. A total of 24 K-level packets and 66 primary (1-3) was distributed. Teachers participated voluntarily and anonymously. Forms were picked up 2-3 weeks later. Of the 90 total distributed, 57 were returned (KGN: 19, PRIM: 38), of which 49 were useable (KGN: 16, PRIM: 33). A second data source, M.Ed. students enrolled in an upper division ECE graduate course, was surveyed over the past two years as part of the class activity. Unlike the initial source, however, these K-5 teachers were asked to respond to both instruments (on separate evenings), rather than just the one that reflects their current grade-level teaching assignments. Combining these data sources yielded total samples of 82 KGN and 90 PRIM respondents.

Values of 1-7 were assigned to the seven blanks of each (a) and (b) item pair, representing response choices from "Inappropriate" to "Appropriate," respectively. Totals were tallied by respondent for both (a) and (b) for each paired item. Data were then analyzed for internal consistency using Cronbach's Alpha (Fore & McLeod, 1994). Determining this value separately for each of the four sample subsets [KGN (a) and (b), PRIM (a) and (b)]

yielded the following values:

Table 1

Alpha and Standardized Item Alpha

GROUP	n	alpha	Standardized Alpha
Kindergarten "Am"	82	.8560	.8648
Kindergarten "Want to be"	82	.9229	.9260
Primary "Am"	90	.9339	.9355
Primary "Want to be"	90	.9585	.9593

Using the KGN (a) and PRIM (a) responses (reflecting "Am" or current attitude), data were then analyzed for factor validity using Procedure Factor of SPSS Release 4.1 for IBM. Examination of the factor correlation matrices (Tables 2, 3) revealed no significant correlation among the factors generated. A varimax rotation was thus utilized for interpretive analysis.

The resulting analysis yielded seven KGN factors accounting for 67% of the total variance within the system, and 11 PRIM factors accounting for 73% of the variance within this system. However, examination of the Eigenvalue plots for both (Tables 4, 5) indicated a single factor solution for each. Indeed, 14 of the 23 KGN variables loaded on the first factor with correlation coefficients greater than .439 (Table 6), while 31 of the 37 PRIM variables loaded on the first factor with correlation coefficients

greater than .446 (Table 7).

The results indicate little value for the use of Developmentally Appropriate Practice (1987) for self-assessment as herein described. Results further indicate possible problems with the organization of DAP by column headings ("Curriculum goals", "Teaching strategies", etc.), since there appears to be no statistical validation for the grouping of descriptors under these headings. Indeed, it would appear that both the 4- and 5-year old and the primary grades descriptors are describing essentially one general behavior/attitude each. As DAP is revised, NAEYC may wish to consider a reorganization by column headings and/or a more careful wording of descriptive content to remove potential ambiguity within, and overlap among, the various descriptors.

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Table 2
KGN Factor Correlation Matrix

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
FACTOR 1	1.00000				
FACTOR 2	.21155	1.00000			
FACTOR 3	.14084	.14327	1.00000		
FACTOR 4	.04971	.15971	.05218	1.00000	
FACTOR 5	-.27253	-.27835	-.07067	-.11391	1.00000
FACTOR 6	-.15333	-.06533	.05532	-.05910	.11989
FACTOR 7	.23862	.15220	-.05592	.04762	-.18942

	FACTOR 6	FACTOR 7
FACTOR 6	1.00000	
FACTOR 7	-.09006	1.00000

Table 3
PRIM Factor Correlation Matrix

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
FACTOR 1	1.00000				
FACTOR 2	-.12680	1.00000			
FACTOR 3	.24961	-.17177	1.00000		
FACTOR 4	-.16054	-.01030	-.09786	1.00000	
FACTOR 5	-.25178	.14082	-.17038	.04819	1.00000
FACTOR 6	-.24073	.10033	-.27940	.09246	.19661
FACTOR 7	.18332	-.07668	.23101	-.09609	-.17309
FACTOR 8	.19517	-.08860	.20881	-.09764	-.12863
FACTOR 9	-.26645	.17939	-.15840	.14487	.19236
FACTOR 10	-.12270	.19961	-.11193	.07547	.12460
FACTOR 11	.25833	-.15602	.11797	-.00900	-.09400

	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
FACTOR 6	1.00000				
FACTOR 7	-.21577	1.00000			
FACTOR 8	-.13032	.17245	1.00000		
FACTOR 9	.20554	-.18276	-.10822	1.00000	
FACTOR 10	.05219	-.11219	-.05658	.16997	1.00000
FACTOR 11	-.21033	.14727	.10536	-.18577	-.06202

	FACTOR 11
FACTOR 11	1.00000

Table 4
KGN Eigenvalues

Factor	Eigenvalue	Pct of Var	Cum Pct
1	6.30474	27.4	27.4
2	2.23194	9.7	37.1
3	2.07686	9.0	46.1
4	1.41872	6.2	52.3
5	1.25848	5.5	57.8
6	1.12458	4.9	62.7
7	1.00980	4.4	67.1

Table 5
PRIM Eigenvalues

Factor	Eigenvalue	Pct of Var	Cum Pct
1	11.61204	31.4	31.4
2	2.60479	7.0	38.4
3	1.95703	5.3	43.7
4	1.78759	4.8	48.5
5	1.66594	4.5	53.0
6	1.46110	3.9	57.0
7	1.30343	3.5	60.5
8	1.27790	3.5	64.0
9	1.20873	3.3	67.2
10	1.08288	2.9	70.2
11	1.00176	2.7	72.9

Table 6
KGN Factor - Variable Correlation Matrix (Partial)

VARIABLE	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
A22	.73753	-.02635	-.11056	.06937
A23	.73162	-.37261	.25302	.08863
A9	.66412	.07775	-.36498	-.25147
A11	.66133	-.09415	-.29652	.02918
A21	.63408	.15951	.25718	-.05891
A20	.62792	-.37597	.01365	.32567
A13	.59954	.03036	.38030	-.09688
A1	.59945	.45844	-.10915	-.23511
A5	.56644	.56428	-.06626	.05872
A2	.55789	.42558	-.20906	-.21342
A16	.52419	-.36891	.34517	-.18993
A12	.49758	.25773	.03299	.11492
A8	.46939	-.24434	-.36857	-.34612
A10	.43971	-.39526	-.20877	.31859
A19	.51592	-.56010	.15567	-.03212
A7	.43492	.50194	.04739	.19135
A18	.11620	.18281	.65020	-.19585
A3	.40538	-.04005	-.55341	-.10936
A17	.48841	-.00087	.55254	.04908
A4	.30063	.23901	.04263	.73411

Table 7
PRIM Factor - Variable Correlation Matrix (Partial)

VARIABLE	FACTOR 1	FACTOR 2
A19	.74483	-.00490
A26	.71507	-.14918
A27	.70922	-.06168
A22	.69605	.29855
A30	.68683	.39158
A6	.66712	-.40654
A2	.65344	.25163
A7	.65037	-.18959
A9	.63728	.05653
A25	.61679	-.41389
A32	.60489	.23929
A8	.60366	.23378
A16	.59745	-.11208
A31	.58828	.14970
A4	.58505	-.32542
A17	.58352	-.09401
A35	.57483	-.06213
A12	.57389	.13748
A34	.57211	-.04699
A23	.56493	-.40101
A29	.55870	-.25303
A10	.54221	.08797
A24	.54143	.47662
A33	.53429	.17373
A14	.52538	-.03402
A3	.51994	-.50103
A20	.50908	-.03049
A28	.48452	-.05321
A36	.48092	.14300
A13	.44845	.35145
A15	.44677	.36599
A5	.35288	-.56812
A37	.37907	.35260
A18	.38644	-.24895
A21	.25695	.18596
A11	.25981	.20659
A1	.41798	.02234