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Using a Statistical-Indicator Methodology for Accreditation

During 1991-92 the National Child Care Association (NCCA), a 4,500-member organization representing the private-for-profit sector in child care in the United States, pilot tested an indicator checklist system as a part of the developing and implementing of the National Early Childhood Program Accreditation system (NECPA). In the development of any indicator checklist system (ICS), a comprehensive set of standards must be used as the backdrop for creating key indicators. The NECPA system used as its set of comprehensive standards the NAEYC accreditation criteria.

NCCA's reason for developing the NECPA system was to streamline accreditation without losing the comprehensiveness of self-study. This was a formidable endeavor in attempting to be cost efficient without compromising effectiveness. NCCA tried an ICS methodology because of its successful use in the development of licensing and monitoring systems. However, the methodology had never been used with accreditation.

NAEYC's accreditation system had a long history of development and revision. It is clearly recognized in the early childhood field as the standard for program quality. Some states have built child care funding standards based upon NAEYC accreditation. Because of its reliance on

an instrument-based program monitoring system and its comprehensiveness, NAEYC accreditation fits nicely with the ICS methodology. These aspects of NAEYC's system are two major criteria in the development and use of the key-indicator methodology, and this relationship between an indicator checklist and its respective comprehensive instrument is critical. NECPA is the indicator checklist, with NAEYC being the comprehensive tool. Indicator methodology is always based upon this relationship with the comprehensive tool, which means that the indicator checklist cannot be used solely as the review instrument. In other words, the indicator checklist (NECPA) can never replace the comprehensive instrument (NAEYC).

Key-indicator methodology, an ICS developed in the late 1970s, responded to the Federal Inter-agency Day Care Requirements' (FIDCR) need to create a cost-effective and efficient monitoring system that would measure compliance with regulations. The ICS is based upon a statistical methodology that has the ability to predict overall compliance with state or federal regulations, based upon a very short list of key regulatory indicators. These key regulatory indicators predict statistically the probability that a program will either be in compliance or out of compliance with state

regulations in the aggregate. If a program is in compliance with the key regulatory indicators, the chances are that the program is in compliance with all regulations. The reverse is also true, if a program is out of compliance with the key regulatory indicators, the chances are that the program is out of compliance with other regulations.

A pilot study conducted between summer 1991 and spring 1992 used the NAEYC self-study process with an abbreviated version of the NAEYC criteria, the new American Academy of Pediatrics/American Public Health Association (AAP/APHA) child care standards, and selected criteria from a national licensing database of key indicators maintained at the Pennsylvania State University at Harrisburg. Trained observers (graduate students in the university's early childhood program) administered the two tools at selected sites throughout Pennsylvania. Results from the observations were tabulated into overall percentage scores on the program as well as component scores by administration, curriculum, physical environment, health and safety, and staffing (Figures 1 and 2). The overall correlations were all statistically significant, showing a very strong relationship (r) between the two tools ($r = .93+$, with component scores = .88 to .96).

These results should not be surprising because the key indicators are essentially a subset of the overall comprehensive instrument used by NAEYC, with only some modifications from the APHA/AAP standards and the National Key Indicator Data Base. This is an important point because there have been misunderstandings regarding the relationship between the two systems. On the surface the NECPA accreditation system appears as a watered-down version of the NAEYC accreditation system. This is not the case. It is true that the NECPA system has fewer criteria; however, the reason is that these criteria are the key indicators that statistically predict compliance with all NAEYC criteria. For the most part, the NECPA and NAEYC systems would accredit the same programs and defer accreditation on the same programs.

Could NAEYC use the key-indicator statistical methodology in its present system? I think the answer is a qualified yes. For programs seeking reaccreditation, with certain criteria not changing, such as no director turnover, little staff turnover, full license in place, no complaints, and so on, the answer would be in the affirmative. The key-indicator statistical methodology would have to be

limited in this way. It should not be used in a reaccreditation where substantial changes have occurred. If changes have occurred, it alters and invalidates the key-indicator statistical methodology, which is always based upon a comprehensive review—the NAEYC self-study.

Remember that the real advantage to using a key-indicator methodology is in the time saved by a high-quality program in which there is high compliance with all criteria. Also, there is the time saved in the review process by validators and national accreditation commissions.

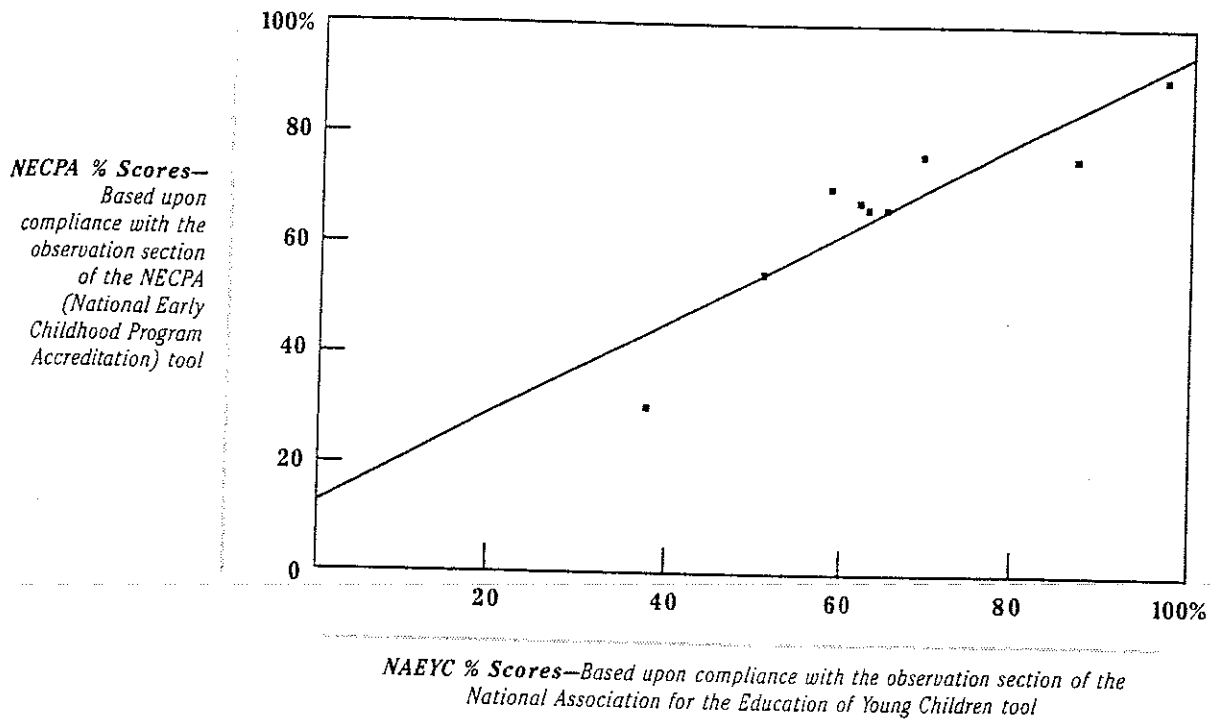
The key-indicator methodology could be used with a sample group of NAEYC-accredited programs from the national database that NAEYC maintains. The key-indicator statistical methodology could be run on this sample of programs. Key indicators would be developed from the results. This is a relatively straightforward exercise that could be done at the Pennsylvania State University at Harrisburg National Center for Early Childhood Program Evaluation. A sampling of key regulatory indicators from the National Key Indicator Data Base follows:

- staff-child ratios
- group size
- staff training
- director qualifications
- lead-teacher qualifications
- children properly immunized
- children supervised at all times
- developmentally appropriate discipline followed

The purpose in developing the NECPA system and in even suggesting the use of the key-indicator methodology within the existing NAEYC accreditation system is not to water down a comprehensive process but to make it more efficient and effective in reaccrediting programs of very high quality. The use of key indicators also helps to streamline a rather labor-intensive, validator and national commission process and review. Another component of the NECPA system is the automated/computer-generated profile of program compliance with standards. The NECPA system was not designed as a competing system but, rather, a system complementary to NAEYC's using the latest technologies in the monitoring of early childhood programs.

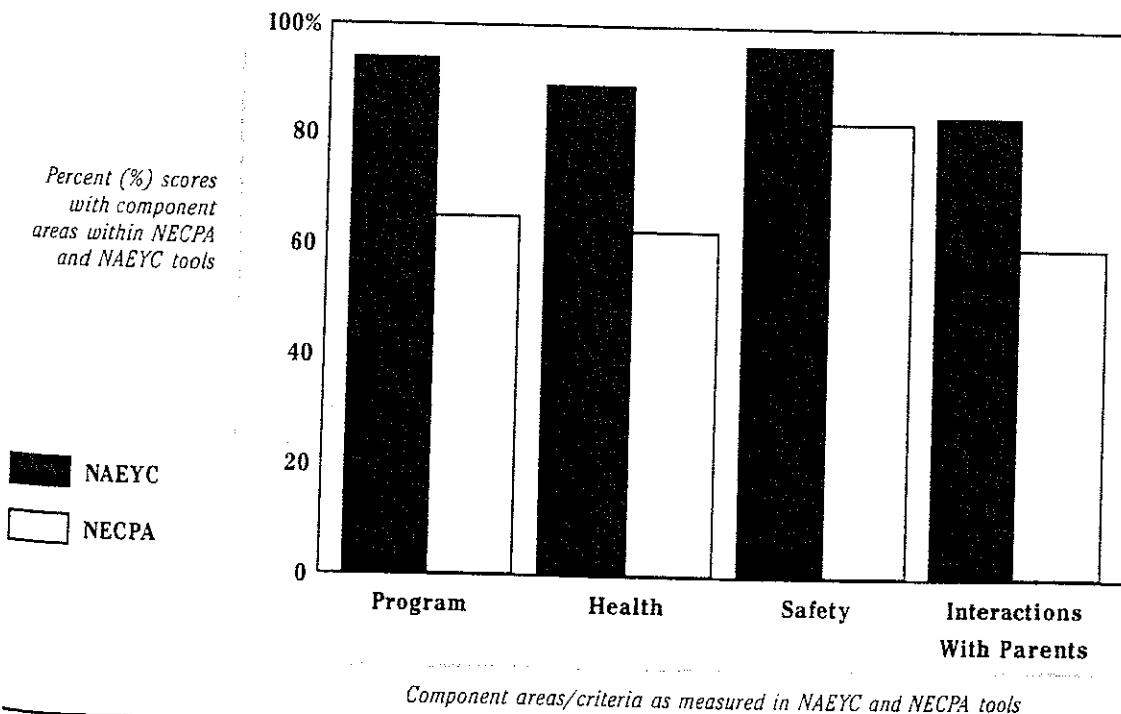
Although the NECPA system was not designed to compete with the NAEYC system, the issue of competition has surfaced, often generating impas-

Figure 1. Relationship of NAEYC and NECPA Accreditation Systems



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Figure 2. Comparison of NAEYC and NECPA Accreditation System Components



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sioned discussion. The accreditation of early childhood programs stands to benefit or suffer, depending on one's perspective. On the positive side, a certain amount of competition generally improves the systems involved; it is to be hoped that both the NECPA and NAEYC systems will improve as a result of their coexistence. However, the negative side is that having two systems is potentially confusing for parents. Although NECPA is a key-indicator approach of the NAEYC accreditation system, this is not clear for the average consumer of child care services. In fact, the key-indicator methodology lacks full acceptance within the early childhood research community. Researchers see the benefit of the key-indicator approach within a licensing system but still question its usefulness within an accreditation system.

With the pilot study and the subsequent research done on the NECPA system, the bottom line is the resulting validation of the NAEYC accreditation system. The NAEYC system remains the comprehensive standard in the field against which all other accreditation systems must be measured. The NECPA results only confirm this, with extremely high correlations between the short version of the NAEYC instrument and the comprehensive version of the NAEYC instrument. The NAEYC system establishes the baseline of program quality for early childhood programs. It is the starting point for programs in their comprehen-

sive self-evaluation. A self-study based upon the key-indicator methodology (NECPA is an example of this approach) can never replace a comprehensive review. The key-indicator self-study can supplement the comprehensive review in subsequent years if there have been few changes since the program conducted its last comprehensive review. It is always assumed that there was very high compliance with the NAEYC criteria in becoming accredited in the first comprehensive self-study.

Future developments in accreditation need to take into account the results of the NECPA pilot and the NAEYC accreditation system. Is the selected use of a key-indicator statistical methodology warranted within the NAEYC system? Only with additional research will we be able to determine the answer.

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