

survival in mainstreamed classrooms for mildly handicapped students provide additional impetus for such a focus.

You are invited to send charts and brief narratives, or short summary reports of changes in behavior specific techniques. The first column will be devoted to providing a common framework for understanding the current literature on social skills, and possible areas for Precision Teaching exploration.

Precision Teaching and Social Skills Training: Some Possible Directions

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Foster and Ritchey (1979) have defined social competence as "the ability to maximize the probability of producing, maintaining, or enhancing positive effects for the interactor" (p. 632). Van Houten (1979), Arkowitz (1981) and others have developed similar definitions for social skills. According to these definitions, an individual who is socially skilled has a repertoire of behaviors which increase the likelihood of the individual being positively reinforced for his/her behaviors and decrease the likelihood of the individual being punished for social interactions. Implicit in such definitions is the need to examine the effect of the individual's behavior on the individual according to some measure of the environmental reaction.

When measuring social skills, then, the investigator can decide to measure specific behaviors or to measure interactions. In the past, many studies have measured isolated social behaviors and the influence of specific interventions on isolated skills. These studies have measured the effects of specific techniques on eye contact, talking out, verbal imitation and other behaviors. These studies have added to the general body of knowledge concerning the effectiveness of specific techniques for increasing or decreasing specific behaviors. However, as Barrett (1980) has suggested, a danger of such an approach is that we teach splinter skills and do not ultimately assist our students, but rather spending precious hours to obtain mediocre and perhaps even nonfunctional results.

The issue which is of foremost consideration is that of social validity. Foster and Ritchey (1979) discussed social validity in terms of whether or not a behavior is critical to adaptive social functioning.

Wolf (1978) is often quoted for his definition of social validity, which refers to the acceptability of treatment techniques and the magnitude of treatment effects, often measured through consumer satisfaction. Van Houten (1979) described two procedures for determining the social validity of the change in behaviors: (1) comparing the behavior to peers who did not receive treatment or need treatment or (2) comparing the treatment behavior of the individual to an optimal level of performance. Van Houten advocated the selection of appropriate target behaviors along with competency aims expressed in terms of optimal frequency, duration, and latency of response.

If Precision Teaching is to be utilized with a renewed effort to better understand how to define and measure social skills, then it appears that the social validity of our measurement should be a major concern. Whereas a monadic approach (Strain & Shores, 1977) can lead to supposition concerning the efficacy of a specific intervention, as in the case of a decrease in drooling, measurement of other events or surrounding variables is needed before definitive conclusions concerning the effects of the decrease in drooling can be made. Measurement of the approach of others, duration of contact with the subject, or inclusion in social activities may be important variables, if, in fact, the intent of the intervention was to increase social acceptability. Such measurement of concomitant variables may be one approach to insure the social validity of the intervention or even selection of a targeted behavior. Strain, Shores and Kerr (1976) suggested that one important aspect of such measurement may be the reciprocity of behaviors, whereby negative interactions are typically paired with negative interactions and positive interactions are followed by positive interactions.

A more traditional approach to the assessment of social/behavioral skills has included the use of behavioral checklists such as the Walker Behavior Problem checklist, the Behavior Problem checklist, and the A.A.M.D. Adaptive Behavior Scale. Self-concept inventories such as the Valette Self Concept Inventory also could be included in this category of approaches to assessment. Problems with the reliability and validity of these checklists (Irvin, Cromwell, and Bellamy, 1970) include the ambiguity of the items, leniency of ratings and errors of central tendency making it more likely to rate close to the mean. Despite these problems, these checklists are frequently

used to determine special education placement and IEP goals. Measurement of social skills deficits, strengths, gains, and regressions could likely be enhanced through application of precision teaching techniques and frequency recording of targeted behaviors from the checklists, with measurement of surrounding environmental events as appropriate.

Thus far three possible ways of using precision teaching have been described: (1) the traditional measurement of isolated behaviors, (2) measurement which included some focus on the outcomes of the behavior for the individual, and (3) use of frequency measures with traditional testing. In regard to the efficacy of measurement, social validity of both the selection of the targeted behavior and treatment effects, was also discussed. In consideration of the applicability of precision teaching to the measurement of social skills and directions for future exploration, three other issues are central: (1) the measurement unit selected, (2) curriculum development and effects, and (3) counting and recording procedures.

Measurement Unit

Frequency, for many valid reasons, has been the primary measurement unit used with precision teaching. However, as Arkowitz (1981) has identified, a serious problem in using frequency to evaluate social skills is that "implicit in such an approach is that it is better to have more of a 'good behavior' (e.g., eye contact) and less of a 'bad behavior' (e.g., speech disruptions). Perhaps there can be too much of a good thing and too little of a bad one" (p. 303). A logical way of handling this dilemma is to obtain ecological baselines through measuring behaviors of skill proficient peers and establishing desired rates with upper and lower boundaries.

Much of the psychological literature is based upon reports of percentages of intervals during which behaviors were displayed. A major difficulty with the interval approach is that behavior is defined according to artificial units of behavior which in and of themselves are meaningless. For example, stating that Susie cried during 30% of the 5 minute intervals provides some general information on the level of the behavior. Measurement of the frequency, duration, or latency of crying provide additional details which are lost in interval measurement. An advantage of using interval measures is that it is easier to obtain high rates of

interobserver reliability, particularly when counting multiple classes of behavior such as positive interactions, negative interactions, and neutral interactions. However, much data are lost in such a process and of interpretation of the behavior can change with changes in the artificial units.

When measuring such behaviors as interactions with others or interaction with objects in the environment, duration as well as frequency may be needed. Generally it is preferable to use both of these units rather than interval measurement. Some of my preliminary work with the analysis of videotapes using frequency counts, no measurement, and interval systems (Mason, 1984), suggests that it may be useful to begin a social analysis using an interval recording system and switch to frequency as a second level of analysis in order to obtain more detailed information on targeted behaviors identified through interval measurement.

Curriculum

Precision teaching can easily be used to measure the effects of social skills curriculum, either the published curriculum such as the **Walker Accepts Curriculum** or Goldstein's **Skillstreaming the Adolescent** or **Skillstreaming the Elementary Child** or teacher developed curriculum. Using a precision teaching approach, counting an "inner" could be developed into a sequence of "inners" that may lead to social competence. Similarly, using task analysis, students could verbalize the association of emotions with events (I feel happy when ...) as well as problem solving statements (When ... wants to fight, I will ...). Correlations-between saying or writing these statements and overt behaviors or reactions from others in the environment could also be measured.

Counting and Recording

Of course many of the traditional precision teaching procedures such as self-monitoring, peer monitoring (especially of curriculum activities), and teacher monitoring are applicable. Additionally, new technology adds additional options such as videotaping or computer coding. The Epson computer with a program designed by Repp, Harman, and Felce (undated) is particularly useful in that real life event recording of up to 43 variables is possible with computerized tallies of both the frequency and duration of events.

With such a program, it is possible to code about twenty variables simultaneously- with

high reliability. The addition of an expansion unit allows for a time lag series analysis as well. Interobserver reliability of 90%+ has been obtained with this unit, and the program is ideal for measuring teacher-pupil or staff-client interactions.

Summary

With current emphasis on social skills development, and the current need for preparing children to function in socially acceptable ways in an every changing world, now is the time for precision teaching practitioners to focus energy on better understanding how social competence can be facilitated. Issues such as which measurement units to use, how to best measure interactive effects, the effectiveness of different curricula, and the advantages of technology can and need to be addressed. Just as reading and math have been taught through the systematic application of precision teaching, sets of social skills may be able to be taught. By sharing information, data, and resources we may be able to accelerate this process.

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