3. in 3 consecutive trials
4. 3 of 4
5. in 9 of 10 attempts
6. in 90% of his attempts

Application and Importance of Behavioral Objectives

The ability to understand and write behavioral objectives has far-reaching ramifications in speech-language pathology. Mowrer (1988) stated, “Behavioral objectives are included as a basic ingredient of many commercially developed instructional programs available to speech clinicians” (p. 149). If you do not understand behavioral objectives, you will have difficulty conducting the programs and obtaining and recording responses in the intended manner. Mowrer (1988) also stated, “Most federal grant applications which pertain to any form of instruction require that objectives be clearly indicated and tied to performance measures” (p. 149). Although grant writing is not foremost at this point in your career, it may become important in the not too distant future. With the practice in writing behavioral objectives that is gained during the clinical practicum, you learn basic skills that can easily be applied to the grant-writing process. However, there are more immediate reasons for gaining expertise in writing behavioral objectives, such as for writing lesson plans, reports, and Individualized Education Programs (IEPs).

Lesson Plans

Behavioral objectives make up a major part of lesson plans (also referred to as pretherapy plans or clinical strategy outlines). Before entering each therapy session, the clinician must develop a lesson plan, which consists of realistic goals to be accomplished during that session. These goals are written in the form of behavioral objectives. Lesson plans can be developed for each session separately or for all sessions held within a week. The following factors need to be considered when determining the frequency with which lesson plans are written: the length of the sessions, the frequency of the sessions, and the client’s progress. If progress is fast, a new plan should be devised for each session. If progress is slow, a weekly plan may be adequate.
Lesson plans are usually divided into two main parts. The first part consists of session objectives, which are called short-term objectives, short-range objectives, lesson objectives, subobjectives, or transitional objectives. Regardless of the terminology used, they are all expressed in behavioral objectives. The second part of a lesson plan consists of procedures used to meet each objective listed. Additional requirements for lesson plans vary from training program to training program. It is likely that you will be required to provide a written rationale for each objective.

**Short-Range Objectives**

According to Thompson (1977), “Short-term objectives are concerned with small units of behavior and should be attainable in a short time” (p. 54). Thompson (1977) also said, “The short-term objectives identify the appropriate activities through which the child will progress toward the expectancies stated in the long term plan” (p. 6). Silverman (1984) stated, “Short-term goals specify abilities that clients must acquire before they can achieve long-term goals” (p. 230).

A lesson plan for a child 10 years 3 months of age is in Figure 1.1. It includes short-term objectives and procedures for a mild articulation problem.

**Long-Range Objectives**

Behavioral objectives are also used when writing long-range objectives, also known as long-term objectives or long-term goals, and may or may not be the same as terminal objectives, which are the final objectives that need to be mastered prior to discharge. The length of time implied by “long term” varies. It could mean 3 months or 1 year; however, when one is functioning within a college or university setting, the term often is defined as the length of one semester, one quarter, or two quarters, depending on the administrative calendar. Thus, it seems reasonable that additional nomenclature could be semester or quarterly objectives.

Objectives that can realistically be accomplished within the designated time frame must be determined. This task is not always easy, and the initial long-range objectives may have to be revised at varying intervals. However, the number of revisions should decrease as the clinician gains experience. Silverman (1984) stated, “Long-term goals specify the outcome the clinician is attempting to achieve” (p. 224). Because long-range objectives are written in a behavioral objective style, you should now have the foundation necessary for their construction.
LESSON PLAN

Short-Term Objectives:

1. Steven will correctly produce the /s/ phoneme in all positions of words in 90% of his attempts.
2. Steven will correctly monitor (point to the appropriate light) his production of the /s/ phoneme in all positions of words in 90% of his attempts.
3. Steven will correctly imitate the /s/ phoneme in the initial position of words in sentences in 90% of his attempts.
4. Steven will correctly monitor (point to the appropriate light) his imitations of the /s/ phoneme in the initial position of words in sentences in 90% of his attempts.
5. Steven will correctly produce the /s/ phoneme in the initial position of words in sentences in 90% of his attempts.
6. Steven will correctly monitor (point to the appropriate light) his productions of the /s/ phoneme in the initial position of words in sentences in 90% of his attempts.

Procedures:

1. Steven will say words containing the /s/ phoneme in the initial, medial, and final positions. If /s/ is produced incorrectly, auditory stimulation or placement cues will be used to help him attain a correct response.
2. After saying each word, Steven will indicate the correctness of the /s/ production by pointing to a red light if incorrect and a green light if correct.
3. Sentences containing /s/ in the initial position of words will be presented for Steven to imitate. For each error made, Steven will produce the word by itself. If correct production is attained, he will again imitate the sentence, trying to incorporate this correct production. If production remains incorrect, the sentence will be broken into phrases and auditory stimulation will be used.
4. After imitating sentences containing /s/ in the initial position of words, Steven will indicate the correctness of each target production by pointing to a red light if incorrect and a green light if correct.
5. Steven will construct sentences containing /s/ in the initial position of words. For each error made, he will produce the word by itself. If correct production is attained, Steven will again produce the sentence, trying to incorporate this correct production.
6. After producing sentences containing the /s/ phoneme in the initial position of words, Steven will indicate the correctness of each target production by pointing to a red light if incorrect and a green light if correct.

Figure 1.1. Sample lesson plan.

Relationship Between Long-Range and Short-Range Objectives
Because short-range or short-term objectives are based on behavioral objectives, Thompson (1977) stated, "Short-term objectives must be
consistent with the LTO [long-term objective] and should flow from it” (p. 49). He also stated that short-range objectives “are small segments of behavior and should be manageable units of instruction and should assist the instructional process, not interfere with it” (pp. 50, 52). Thus, it may be necessary for many short-range objectives to be accomplished before a long-range objective is achieved. For example, if a client cannot perform the short-range objectives listed below, it will be necessary to master them before being able to attain success on the long-term objective: correct production of the /s/ phoneme in spontaneous conversation in 90% of his attempts.

The client will

1. auditorily discriminate (indicate by raising his hand) the /s/ phoneme from dissimilar phonemes when presented in isolation in 90% of his attempts.
2. auditorily discriminate (indicate by raising his hand) the /s/ phoneme from similar phonemes presented in isolation in 90% of his attempts.
3. auditorily discriminate (indicate by raising his hand) the /s/ phoneme from similar phonemes in consonant-vowel combinations in 90% of his attempts.
4. auditorily discriminate (indicate by raising his hand) the /s/ phoneme in the initial position of words when presented in rhyming word pairs in 90% of his attempts.
5. correctly imitate /s/ in isolation in 90% of his attempts.
6. correctly produce the /s/ phoneme in isolation in 90% of his attempts.
7. correctly monitor (state if correct or not) production of the /s/ phoneme in isolation in 90% of his attempts.
8. correctly imitate /s/ in the initial position of words in 90% of his attempts.
9. correctly produce /s/ in the initial position of words in 90% of his attempts.
10. correctly monitor (state if correct or not) production of the /s/ phoneme in the initial position of words in 90% of his attempts.
11. correctly produce /s/ in the final position of words in 90% of his attempts.
12. correctly monitor (state if correct or not) production of the /s/ phoneme in the final position of words in 90% of his attempts.
13. correctly produce /s/ in the initial position of words in phrases in 90% of his attempts.
14. correctly monitor (state if correct or not) production of the /s/ phoneme in the initial position of words in phrases in 90% of his attempts.
15. correctly produce /s/ in the initial and final positions of words in phrases in 90% of his attempts.
16. correctly monitor (state if correct or not) /s/ in the initial and final positions of words in phrases in 90% of his attempts.
17. correctly produce /s/ in the initial and final positions of words in sentences in 90% of his attempts.
18. correctly monitor (state if correct or not) /s/ in the initial and final positions of words in sentences in 90% of his attempts.
19. correctly produce /s/ in structured conversation in 90% of his attempts.
20. correctly monitor (self-correct) 90% of the incorrect /s/ productions during structured conversation.

Depending on the client's progress, additional steps may have to be added, some may be combined, and some may be eliminated. For example, imitation of the target behavior may need to precede Objectives 11, 13, 15, 17, and 19 if the client has difficulty with production. The client's performance will provide guidance in making these decisions. The point is that, by accomplishing the previously listed short-range objectives, the client is working toward mastering the long-range objective. If the client masters each short-range objective, he should be able to master the long-range objective, which is to correctly produce the /s/ phoneme in spontaneous conversation in 90% of his attempts.

The following language example further clarifies the relationship between long-range and short-range objectives. Again, it will be necessary for the client to master the short-range objectives listed below before being able to attain success on the long-range objective (correct production of the singular present progressive tense in 90% of the obligatory contexts during all communication events).

The client will

1. correctly imitate Noun + is + Verb + ing immediately following a model in 90% of his attempts.
2. correctly imitate Noun + is + Verb + ing 2 seconds after the model is presented in 90% of his attempts.
3. correctly imitate Noun + is + Verb + ing when an intervening sentence is presented between the model and response in 90% of his attempts.
4. correctly produce Noun + is + Verb + ing in response to the question "What is the Noun doing?" in 90% of his attempts.
5. correctly produce Noun + is + Verb + ing in response to "What's happening in this picture?" in 90% of his attempts.
6. correctly produce Noun + is + Verb + ing in response to "Tell me about the Noun" in 90% of the obligatory contexts.
7. correctly produce Noun + is + Verb + ing when telling a story from pictures in 90% of the obligatory contexts.
8. correctly produce Noun + is + Verb + ing when looking out
the window and discussing events of the people seen, in
90% of the obligatory contexts.
9. correctly produce Noun + is + Verb + ing during an oral pre-
sentation in the classroom in 90% of all obligatory contexts.

The client's performance determines when and if other steps should be
added, combined, or eliminated. By accomplishing the short-range ob-
jectives listed, the client is working toward mastery of the long-range
objective. If the client successfully passes through the various steps, he
is well on his way toward correct production of the singular present
progressive tense in obligatory contexts encountered during commu-
nication events.

Relationship Between Long-Range and Terminal Objectives
As previously mentioned, the long-range objectives may or may not be
the same as the terminal objectives, which are also based on behavioral
objectives. An explanation that focuses on the two long-range objec-
tives discussed in the previous section is provided in this section. The
articulation objective is “correct production of the /s/ phoneme in
spontaneous conversation in 90% of his attempts.” The language ob-
jective is “correct production of the singular present progressive tense
in 90% of the obligatory contexts during all communication events.”

If a client with an articulation problem misarticulates only the /s/
phoneme and has no other speech, language, or communication prob-
lem, the long-range objective stated in the previous paragraph is the
same as the terminal objective, which Mower (1988) described as “one
you wish to have accomplished when you are ready to dismiss a case”
(p. 169). In other words, as soon as the client masters the long-range
objective, he is discharged or terminated from therapy. If the client
misarticulates other phonemes that he should have mastered, therapy
would continue. In this latter example, the long-range objective and
terminal objective are not synonymous. The client's terminal objective
may be “correct production of the /s/, /V/, and /r/ phonemes in all
contexts during spontaneous conversation in 90% of his attempts.”
The terminal objective may also be stated as “correct production of all
phonemes in all contexts during spontaneous conversation in 90% of
his attempts.”

Likewise, the long-range language objective can be a terminal ob-
jective under certain circumstances. If the rest of the client's language,
speech, and communication is appropriate for his age, he would be dis-
missed from therapy after mastering the present progressive tense. Thus,
in this situation, this long-range objective is the same as the terminal
objective. However, if the client has difficulty with other aspects of

Report

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language, other long-range objectives would have to be mastered before discharge from therapy. In this latter case, a long-range objective and a terminal objective differ.

If the client will be dismissed from therapy upon attainment of an objective, the objective can be considered terminal. If the client will be returning for additional therapy, an objective is not terminal.

Reports

Behavioral objectives are written in both the initial evaluation and the progress report. Because progress reports are usually required at the end of the semester or quarter, they are sometimes called “end-of-semester progress reports” or “quarter progress reports.” The objectives that will be emphasized in therapy are listed in the initial evaluation. These objectives are again included in the end-of-semester or quarter progress report, followed by an account of the progress made during the designated time frame. These reports are discussed in Chapter 4, but are mentioned here because it is important to understand the extent to which behavioral objectives are used in the speech-language pathology profession.

Individualized Education Program

The term Individualized Education Program (IEP), which had its origin in the Education for All Handicapped Children Act of 1975 (Public Law [P.L.] 94-142), is familiar to individuals working in the field of education. According to P.L. 94-142, an IEP is a written statement that describes the educational objectives for a child with disabilities and the special services to be provided. In the school setting, the term IEP is more widely used than behavioral or instructional objectives. The law requires that IEPs include annual goals and either short-term instructional objectives or benchmarks, which are “statements about reference points along the path toward learning a new skill or set of skills” (Lucas, 2000, p. 5). Thus, knowledge of behavioral objectives is incorporated into IEP writing. IEPs are explored in depth in Chapter 8.
A goal that you should accomplish as early as possible in the clinical practicum process is to understand the composition and construction of well-written behavioral objectives. Behavioral objectives have far-reaching effects because they form the basis for much of the paperwork required in speech-language pathology. Being able to skillfully write behavioral objectives and realize their importance during this part of the clinical experience will enhance future professional performance.

After reading this chapter, you should be able to:

1. state three reasons why behavioral objectives are important;
2. state and explain the three components of a behavioral objective;
3. divide behavioral objectives into components in 90% of your attempts;
4. correctly write behavioral objectives in 90% of your attempts.