Lesson Three: BEHAVIORISM

1. DEFINITION

Behaviorism is a school of psychology that views individuals only in terms of physical phenomena and ignores mental aspects. In other words, behaviorism does not recognize the intelligence, talents, interests, and feelings of individuals in a study. Learning events train reflexes in such a way that they become habits that are mastered by individuals. In the Psychology Dictionary, several definitions of behaviorism are mentioned:

a. The views of some psychologists in the early 20th century who opposed the method of introspection; and recommends that psychology be limited to the study of visible behavior (observable behavior) as a basis for consideration of scientific data.

b. A flow system of psychology developed by John B. Watson. A general view that emphasizes the role of observable behavior (overt behavior) and reduces the meaning of mental processes.

c. The view that states that human and animal behavior can be understood, bias can be predicted and controlled without the help of information relating to his mental state. A flow of psychology, which emphasizes that psychology is limited to the study of behavior.

Behaviorism argues that behavior must be a single subject of psychology. Behaviorism is a revolutionary school, persuasive and influential, and has deep historical roots. Behaviorism was born as a reaction to introspection (which analyzes the human soul based on subjective reports) and also Psychoanalysis (which talks about the invisible subconscious). The theory of learning behaviorism psychology was advanced by behavioristic psychologists. They believe that human behavior is controlled by rewards or reinforcement from the environment. Thus in the practice of learning, there is a close relationship between behavioral reactions with stimulation.

2. Where behaviourism began

Behaviourism emerged in 1898, in the early stages of developmental psychology. It was the year that Edward Thorndike created his learning theory using a cat and a box.

The box had a pulley system and a lever that the cat had to use if it wanted to escape the box. Thorndike found that by giving the cat a treat when it learned to escape, it learnt to associate it's actions with receiving a treat and would then escape faster next time.

This technique formed the basis for operant conditioning: teaching a behaviour or action through repetition and reinforcement. It's the basis for most behaviourist approaches to teaching.

It wasn't until 1937 that B.F Skinner coined the phrase 'operant conditioning'. As a teacher, Skinner applied Thorndike's learnings to the classroom with a heavily behaviourist approach to teaching.

He was an early adopter and developer of the 'teaching machine' - a desktop-sized wooden box with a viewing panel and a paper ticker for students to write answers. Teachers could insert different worksheets and students worked through these in class at their own pace.

The machine revealed answers instantly so that students could see if they got the answer right. If they did, they received positive feedback in the form of a praise message.

But the teaching machine couldn't replace the personality, flexibility and availability of a classroom teacher. Nor could it mentor students and give them life lessons in their learning, so it was largely rejected by schools, but the theory behind it lives on.

3. HOW DOES LEARNING OCCUR?

Behaviorism equates learning with changes in either the form or frequency of observable performance. Learning is accomplished when a proper response is demonstrated following the presentation of a specific environmental stimulus. For example, when presented with a math flashcard showing the equation "2 + 4 = ?" the learner replies with the answer of "6." The equation is the stimulus and the proper answer is the associated response. The key elements are the stimulus, the response, and the association between the two. Of primary concern is how the association between the stimulus and response is made, strengthened, and maintained.

Behaviorism focuses on the importance of the consequences of those performances and contends that responses that are followed by reinforcement are more likely to recur in the future. No attempt is made to determine the structure of a student's knowledge nor to assess which mental processes it is necessary for them to use (Winn, 1990). The learner is characterized as being reactive to conditions in the environment as opposed to taking an active role in discovering the environment.

4. WHICH FACTORS INFLUENCE LEARNING?

Although both learner and environmental factors are considered important by behaviorists, environmental conditions receive the greatest emphasis. Behaviorists assess the learners to determine at what point to begin instruction as well as to determine which reinforcers are most effective for a particular student. The most critical factor, however, is the arrangement of stimuli and consequences within the environment.

5. WHAT IS THE ROLE OF MEMORY?

Memory, as commonly defined by the layman, is not typically addressed by behaviorists. Although the acquisition of "habits" is discussed, little attention is given as to how these habits are stored or recalled for future use. Forgetting is attributed to the "nonuse" of a response over time. The use of periodic practice or review serves to maintain a learner's readiness to respond (Schunk, 1991).

6. HOW DOES TRANSFER OCCUR?

Transfer refers to the application of learned knowledge in new ways or situations, as well as to how prior learning affects new learning. In behavioral learning theories, transfer is a result of generalization. Situations involving identical or similar features allow behaviors to transfer across common elements. For example, the student who has learned to recognize and classify elm trees demonstrates transfer when (s)he classifies maple trees using the same process. The similarities between the elm and maple trees allow the learner to apply the previous elm tree classification learning experience to the maple tree classification task.

7. WHAT TYPES OF LEARNING ARE BEST EXPLAINED BY THIS POSITION?

Behaviorists attempt to prescribe strategies that are most useful for building and strengthening stimulus-response associations (Winn, 1990), including the use of instructional cues, practice, and reinforcement. These prescriptions have generally been proven reliable and effective in facilitating learning that involves discriminations (recalling facts), generalizations (defining and illustrating concepts), associations (applying explanations), and chaining (automatically performing a specified procedure). However, it is generally agreed that behavioral principles cannot adequately explain the acquisition of higher level skills or those that require a greater depth of processing (e.g., language development, problem solving, inference generating, critical thinking) (Schunk, 1991).

8. WHAT BASIC ASSUMPTIONS/PRINCIPLES OF THIS THEORY ARE RELEVANT TO TODAY'S CLASSROOM?

Many of the basic assumptions and characteristics of behaviorism are embedded in current instructional practices. In fact most UK schools' curriculums are taught based on behaviourist theory.

Rewarding students for working well with commendations or praise points (even with vocal praise) is a behaviourist approach. This conditions students to behave or to strive for better work using the same operant conditioning techniques championed by Skinner.

You can also see behaviourist theory in the way we teach students to revise for exams. The repetition of tasks and quizzes to improve test scores and ultimately get a better grade is distinctly behaviourist. Students learn that the more they practise, the more praise they will receive for doing well and achieving higher grades.

Specific assumptions or principles that have direct relevance to English language teaching include the following:

1. An emphasis on producing observable and measurable outcomes in students [behavioral objectives, task analysis, criterion-referenced assessment]

2. Pre-assessment of students to determine where instruction should begin [learner analysis]

3. Emphasis on mastering early steps before progressing to more complex levels of performance [sequencing of instructional presentation, mastery learning]

4. Use of reinforcement to impact performance [tangible rewards, informative feedback]

5. Use of cues, shaping and practice to ensure a strong stimulus-response association [simple to complex sequencing of practice, use of prompts]

9. INCORPORATE THE FOLLOWING IN THE PREVIOUS SECTION

Direct Instruction: This method involves clear and structured teaching, with a focus on repetition and practice. It ensures that students receive consistent and explicit information.

Token Economy: In a token economy system, students earn tokens or points for exhibiting appropriate behavior. These tokens can be exchanged for rewards or privileges, providing students with a tangible incentive to stay on task.

Prompting and Fading: Educators can use prompts to guide students toward the correct response. As the student becomes proficient, prompts are gradually reduced, allowing them to respond independently.

Behavior Contracts: Behavior contracts outline specific goals and rewards for meeting them. Students and teachers both sign the contract, making the expectations clear and encouraging students to take responsibility for their actions.

Time-Out: Time-out is a temporary removal of a student from a reinforcing environment due to disruptive behavior. It provides an opportunity for the student to calm down and reflect on their actions.

Task Analysis: Complex tasks can be broken down into smaller, manageable steps. By teaching one step at a time and gradually building on the skills, students can achieve success more easily.

10. HOW SHOULD INSTRUCTION BE STRUCTURED?

The goal of instruction for the behaviorist is to elicit the desired response from the learner who is presented with a target stimulus. To accomplish this, the learner must know how to execute the proper response, as well as the conditions under which that response should be made. Therefore, instruction is structured around the presentation of the target stimulus and the provision of opportunities for the learner to practice making the proper response. To facilitate the linking of stimulus-response pairs, instruction frequently uses cues (to initially prompt the delivery of the response) and reinforcement (to strengthen correct responding in the presence of the target stimulus).

Behavioral theories imply that the job of the teacher/designer is to (1) determine which cues can elicit the desired responses; (2) arrange practice situations in which prompts are paired with the target stimuli that initially have no eliciting power but which will be expected to elicit the responses in the “natural” (performance) setting; and (3) arrange environmental conditions so that students can make the correct responses in the presence of those target stimuli and receive reinforcement for those responses (Gropper, 1987).

INCLUDE AN EXAMPLE OF A BEHAVIOURIST CLASS AND HIGHLIGHT THE APPROACHES ASSOCIATED WITH IT SUCH AS THE FOLLOWING: For example, a newly-hired manager of human resources may be expected to organize a meeting agenda according to the company's specific format. The target stimulus (the verbal command "to format a meeting agenda") does not initially elicit the correct response nor does the new manager have the capability to make the correct response. However, with the repeated presentation of cues (e.g., completed templates of past agendas, blank templates arranged in standard format) paired with the verbal command stimulus, the manager begins to make the appropriate responses. Although the initial responses may not be in the final proper form, repeated practice and reinforcement shape the response until it is correctly executed. Finally, learning is demonstrated when, upon the command to format a meeting agenda, the manager reliably organizes the agenda according to company standards and does so without the use of previous examples or models.

11. Drawbacks of Working with a Behavioral Learning Model

Lack of Focus on Cognitive Skills: The behavioral model primarily emphasizes observable behaviors and external stimuli. It may overlook the development of critical thinking, problem-solving, and higher-order cognitive skills, which are essential for long-term learning and academic success.

Limited Application to Complex Learning: The behavioral approach is most suitable for simple and rote learning tasks. However, it may not fully address the complexities of real-world problem-solving and creative thinking, which require deeper understanding and analysis.

Narrow Assessment of Learning Outcomes: Behavioral learning often relies on measurable outcomes, such as correct responses or completion of tasks. This narrow focus might neglect other valuable aspects of learning, such as creativity, emotional intelligence, and social skills.

Possible Overemphasis on Rewards and Punishments: A heavy reliance on rewards and punishments may lead to extrinsic motivation, where students perform for the sake of rewards rather than a genuine interest in learning. This could hinder intrinsic motivation and long-term engagement.

Limited Individualization: The behavioral model might not fully accommodate individual differences in learning styles, strengths, and challenges. Some students may require personalized approaches that consider their unique needs.

Potential for Negative Emotional Impact: Punishments and negative reinforcement can sometimes lead to stress, anxiety, and fear of failure among students. This negative emotional impact may hinder their overall learning experience.

Short-Term Focus: Behaviorist techniques often yield quick results in terms of behavior change. However, their effects may not be long-lasting, and students might revert to previous behaviors once the external incentives are removed.

Less Autonomy and Creativity: The behavioral approach may limit students' autonomy and creativity since they are encouraged to follow specific instructions and predefined behavioral expectations.