

Integrating Cognitive Behavioral Therapy (CBT) Techniques in Language Intervention for Children with Learning Disabilities

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| ARTICLE INFO | ABSTRACT |
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| | <p>Background: Cognitive Behavioral Therapy (CBT) is widely recognized as a practical approach to addressing emotional and behavioral challenges in children with learning disabilities. However, recent studies suggest that CBT techniques may also play a pivotal role in improving cognitive functions such as language acquisition, especially for children struggling with learning disabilities. These children often face language processing, comprehension, and expression challenges, which can hinder academic success and social interactions.</p> <p>Objective: This article explores the application of CBT techniques to enhance language learning in children with learning disabilities. The research aims to understand how specific CBT strategies, like cognitive restructuring, goal setting, breaking down tasks, and positive reinforcement, can be integrated into language instruction to improve linguistic abilities.</p> <p>Methods: The present research combines quantitative and qualitative data with a mixed-method approach. A sample of 30 children diagnosed with learning disabilities was selected for the intervention, receiving CBT-integrated language instruction for 12 weeks. Pre- and post-intervention assessments were conducted using standardized language acquisition tests and qualitative interviews with teachers and caregivers.</p> <p>Results: Preliminary findings indicate significant improvements in language comprehension, vocabulary development, and verbal expression among children who underwent CBT-enhanced language learning sessions. Key CBT techniques, such as self-monitoring and self-regulation, were found to increase motivation and reduce anxiety, which are common barriers in language learning for children with learning disabilities.</p> <p>Conclusion: The study demonstrates the potential of CBT techniques to enhance language learning in children with learning disabilities by addressing cognitive challenges and emotional and behavioral factors that impede language acquisition. These findings suggest a need for further research on integrating psychological interventions in educational frameworks to support children with learning disabilities.</p> <p>Keywords: Cognitive Behavioral Therapy (CBT), Language Learning, Learning Disabilities, Cognitive Restructuring, Vocabulary Development, Educational Interventions.</p> |

INTRODUCTION

Language is a foundational skill that affects every aspect of academic performance and social interaction. Learning disabilities in children can significantly impact their language acquisition and overall academic performance. These challenges often extend beyond cognitive difficulties, affecting emotional well-being and social interactions. However, children with learning disabilities, including dyslexia, often face persistent challenges in language acquisition and learning. Dyslexia, characterized by difficulties with word recognition, spelling, and phonological processing, not only hinders reading and writing but also contributes to emotional struggles such as anxiety, frustration, and low self-esteem.

The correlation between cognitive and emotional factors in learning disabilities is bidirectional: academic struggles can exacerbate emotional difficulties, and emotional distress can impede learning. This interplay underscores the need for interventions that address both domains. While traditional approaches to language instruction have shown limited success for this population, recent research suggests that integrating psychological interventions, particularly Cognitive Behavioral Therapy (CBT) techniques, may offer a promising solution.

Cognitive Behavioral Therapy (CBT), a psychological intervention to modify thought and behavior patterns, offers a promising approach (Beck, 2011). CBT has been conventionally used to treat anxiety, depression, and other emotional issues, which has been adapted for educational contexts to address specific learning disabilities, including dyslexia (Galuschka et al., 2014). Cognitive behavioral therapy, widely recognized for its effectiveness in addressing emotional and behavioral issues, has recently received attention for its potential applications in enhancing cognitive functions, including language learning. The application of CBT in educational settings focuses on improving students' cognitive processes and emotional regulation, by this means boosting their academic performance and overall well-being. By helping children reframe negative beliefs, manage emotions, and engage in productive behaviors, CBT can support language learning in children with LDs.

This study explores the innovative approach of incorporating CBT techniques into language instruction for children with learning disabilities. By examining strategies such as cognitive restructuring, goal setting, task breakdown, and self-regulation, the study aimed to understand how these psychological tools can be leveraged to improve linguistic abilities in this vulnerable population.

Some of the studies have explored the potential benefits of incorporating CBT strategies into language instruction. For instance, research has shown that **cognitive restructuring**, a key component of CBT, can help children with learning disabilities develop more positive attitudes towards language learning. Students may experience increased motivation and engagement in language tasks when negative thought patterns are challenged and replaced with more constructive ones. **Goal setting**, another fundamental CBT technique, has been found to be particularly effective in improving language outcomes for children with learning disabilities.

Task breakdown, a strategy often employed in CBT, has also shown promise in enhancing language learning for this population. By systematically dividing complex language tasks into smaller, more manageable steps, children with learning disabilities can better process and retain information, leading to improved overall language proficiency. By breaking down larger language learning objectives into smaller, practical objectives, students can experience a sense of progress and achievement, which in turn enhances their confidence and willingness to engage in further learning. **Self-regulation**, a critical skill developed through CBT, has been linked to improved language learning outcomes in children with learning disabilities. Studies have demonstrated that teaching self-regulation strategies can help these students better manage their attention, emotions, and behavior during language learning activities, resulting in more effective learning experiences.

Need of the Study: Despite the established effectiveness of CBT, there is a lack of research exploring its application in enhancing language learning in children with learning disabilities. This present research aims to address the knowledge gap by exploring the application of CBT techniques in improving language learning in children with learning disabilities.

Aim/Objective: This study aims to understand how specific CBT strategies can be integrated into language instruction to improve linguistic abilities in children with learning disabilities.

Research Question: How can CBT techniques be integrated into language instruction to improve linguistic abilities in children with learning disabilities?

Hypothesis: Children with learning disabilities who undergo CBT-enhanced language learning sessions will demonstrate significant improvements in language comprehension, vocabulary development, and verbal expression compared to those who do not receive such intervention.

METHODOLOGY

Research Design

This study employs a mixed-methods design, combining quantitative and qualitative approaches to evaluate the efficacy of Cognitive Behavioral Therapy (CBT) for students with dyslexia.

Tools Used

i. Language Assessment Tools:

Word Reading-**Phonological Skill (PS)**, Phrase Reading-**Morphological Skill (MS)**, and Sentence Reading-**Syntactic Skill (MS)**, Reading Comprehension Passage used to measure language skills before and after the intervention.

ii. Behavioral and Emotional Rating Scales:

The BERS-2 is a multi-modal assessment system that measures the child's behavior, measures six aspects of a child's strength: **Interpersonal Strength (IS)**, **Family Involvement (FI)**, **Intrapersonal Strength (IaS)**, **School Functioning (SF)**, **Affective Strength (AS)**, **Supplemental Career Strength (CS)**

Location and Duration

The research was conducted at the 2 Schools in Chennai and the 2 Schools Chidambaram. The study lasts about 6 months, with 3 months for the CBT intervention and 3 months for follow-up assessments.

Sample Technique and Sample Size

i. **Sample Technique:** Convenient sampling was used according to the availability and cooperation of children and teachers in following the intervention plan. To assess the effectiveness of CBT, participants were assigned to either the CBT intervention group according to their parent consent or a control group receiving standard educational support.

ii. **Sample Size:** A total of 30 students with dyslexia were selected, with 20 students in the CBT intervention group and 10 students in the control group.

Inclusion and Exclusion Criteria

i. Inclusion Criteria:

- Students aged 8 to 12 years.
- Diagnosed with dyslexia by a qualified professional.
- Parental consent and student assent to participate.

ii. Exclusion Criteria:

- Presence of other significant learning disabilities or neurological disorders.
- Current participation in another cognitive or psychological intervention.

Variables

i. **Independent Variable:** The CBT intervention.

(cognitive restructuring, goal setting, breaking down task, self-regulation, self-monitoring and positive reinforcement)

ii. **Dependent Variables** Word Reading-**Phonological Skill (PS)**, Word Reading-**Morphological Skill (MS)**, and Phrase and Sentence Reading-**Syntactic Skill (MS)**, Reading Comprehension-**Comprehension Skill (CS)**, **Interpersonal Strength (IS)**, **Family Involvement (FI)**, **Intrapersonal Strength (IaS)**, **School Functioning (SF)**, **Affective Strength (AS)**, **Supplemental Career Strength (CS)**.

Data Collection:

Data was collected through pre-test and post-test, that is before and after intervention assessments using informal language tests, and BERS 2. After Pre-test CBT was planned along with language intervention for 12 weeks plus followup intervention for another 12 weeks. Post-test has been conducted after 6 months of intervention.

CBT for LANGUAGE INTERVENTION

1. COGNITIVE RESTRUCTURING: This is to identify and challenge negative thoughts about language learning abilities

a. Identify Negative Thoughts

Goal: Become aware of unhelpful beliefs about language learning abilities.

Steps:

• **Self-Monitoring:** Encourage the individual to keep a diary of their thoughts when learning or using the new language, especially during challenging moments (e.g., making a mistake or struggling with pronunciation). Examples of negative thoughts:

- "I'm too old to learn a new language."
- "I'll never be fluent."
- "Other people are naturally better at this than me."

• **Trigger Recognition:** Identify the situations or triggers (e.g., speaking in public, receiving corrections) that lead to these thoughts.

b. Challenge the Negative Thoughts

Goal: Evaluate the accuracy and helpfulness of these beliefs.

Steps:

• **Question the Evidence:** Ask the individual to evaluate the truth of their thoughts. This has been given after giving task breaking language intervention
Example questions:

- "What evidence do I have that this is true?"
- "Have I ever made progress in learning this language?"

• **Explore Alternative Interpretations:** Replace negative thoughts with more balanced ones.

Example reframes:

- "It's normal to make mistakes while learning."
- "Learning a language is a gradual process, and I've already made some progress."

c. Replace with Positive Affirmations

Goal: Develop constructive and realistic thoughts to build self-confidence.

Steps:

• Work together to create affirmations that resonate personally.

Examples:

- "Every small step I take improves my skills."

○ "Making mistakes is an element of learning, not an indicator of failure."

- Encourage repeating these affirmations during language practice or in challenging situations.

d. Develop a Growth Mindset

Goal: Shift from a fixed mindset ("I can't do this") to a growth mindset ("I'm improving").

Steps:

- **Celebrate Small Wins:** Track and acknowledge progress, such as learning new vocabulary, completing a conversation, or understanding a complex sentence.
- **Normalize Struggles:** Discuss stories of successful language learners who faced similar challenges.
- **Focus on Effort:** Reinforce the idea that effort and practice lead to improvement.

e. Practice Mindfulness

Goal: Reduce anxiety and increase awareness of present-moment learning experiences.

Steps:

- Teach 'mindfulness techniques', like 'deep breathing' or 'grounding exercises', to address overwhelming thoughts.
- Practice mindful language learning by focusing entirely on the current task (e.g., listening to a new word's pronunciation without judgment).

f. Reinforce Through Action

Goal: Pair new beliefs with supportive behaviors.

Steps:

- Encourage frequent and low-stakes practice (e.g., short conversations, using language apps).
- Promote peer learning to build community and reduce feelings of isolation.
- Create exposure opportunities where mistakes are normalized and learning is celebrated.

2. BREAKING DOWN TASKS: This structured approach emphasizes breaking large goals into smaller, achievable steps, fostering progress, and reducing overwhelm. Here are activities tailored to **phonology**, **morphology**, **syntax**, and **comprehension** within the context of language learning:

Phonological Awareness Training

Research by Torgesen et al. (1999) demonstrates that combining CBT strategies with phonological training can improve reading fluency. CBT techniques such as positive reinforcement and cognitive reframing enhance the effectiveness of traditional language instruction.

Vocabulary Building

CBT-enhanced vocabulary programs use goal-setting and feedback to improve word retention and usage. Jitendra et al. (2004) found that children with LDs who participated in such programs showed significant gains in vocabulary acquisition and application compared to peers in traditional programs.

Reading Comprehension

CBT strategies have also been employed to improve reading comprehension, with interventions focusing on breaking tasks into manageable steps and addressing emotional barriers like fear of failure (Gregory et al., 2014)

Cognitive Behavioral Therapy (CBT)-based approaches to breaking down tasks can help make language learning more manageable. This structured approach emphasizes breaking large goals into smaller, achievable steps, fostering progress and reducing overwhelm. Here are activities tailored to **phonology**, **morphology**, **syntax**, and **comprehension** within the context of language learning:

PHONOLOGY (SOUND RECOGNITION AND PRODUCTION)

1. Phoneme Identification:

- Break down a list of words into individual sounds (phonemes).
- Example: For the word "cat," identify /k/, /æ/, /t/.
- Activity: Listen to recordings, isolate each sound, and practice repeating them.

2. Minimal Pairs Practice:

- Compare words differing by only one sound (e.g., "bat" vs. "pat").
- Activity: Categorize words into pairs and practice distinguishing them.

3. Segmenting Words:

- Divide words into syllables or sounds.
- Start teaching from mono to multi-syllables.
- Activity: Clap out syllables in words to reinforce the phonological structure.

4. Rhyming Practice:

- Identify rhyming words to develop sound pattern recognition.
- Activity: Create rhyming pairs for a given word list.

MORPHOLOGY (WORD STRUCTURE)

Morphological Awareness Activities

Morphological awareness, the ability to recognize and understand the structure of words (roots, prefixes, suffixes), is critical for vocabulary development, reading comprehension, and spelling. Below are engaging activities designed to build morphological awareness in students of various age groups and abilities:

1. Word Sorts

Objective: Help students identify patterns in word formation.

Activity:

- Provide a list of words with common prefixes (e.g., *un-*, *re-*) or suffixes (*-ing*, *-ed*).
- Ask students to group the words by their morphological components.
- Discuss the meanings of each prefix or suffix and how it changes the base word (e.g., *undo* vs. *redo*).
- **Example:** Group words like *unkind*, *redo*, and *unhappy* under prefixes, and *helping*, *running*, and *jumped* under suffixes.

2. Morphological Word Trees

Objective: Visualize how words are connected through morphology

Activity:

- Write a root word on the board, such as *play* or *help*.
- Ask students to brainstorm all related words (*player*, *playful*, *replay*, *unhelpful*).
- Draw a "word tree" showing how each word branches from the root.

Example:

```

      Play
     /  \
  Playing Replay
  
```

3. Compound Word Puzzles

Objective: Develop an understanding of how compound words are formed.

Activity:

- Provide the first and second halves of compound words (e.g., *sun-* and *flower*).
- Have students match the halves to form complete words (*sunflower*, *mailbox*, *rainbow*).
- Discuss the meaning of the individual components and the resulting compound word.

4. Prefix and Suffix Match-Up

Objective: Recognize and apply common prefixes and suffixes.

Activity:

- Provide flashcards with prefixes, suffixes, and root words (e.g., *dis-*, *-ment*, *agree*).
- Ask students to create as many real words as possible by combining the cards. (*disagreement*, *agreements*).
- Discuss the meanings of the new words.

5. Word Building with Affix Cubes

Objective: Encourage creative use of morphological elements.

Activity:

- Create cubes with prefixes, roots, and suffixes on different sides.
- Roll the cubes to generate words.
- Ask students to define the words and use them in sentences.
- **Example:** A roll might create *un-*, *happy*, *-ness* → *unhappiness*.

6. Morpheme Detective

Objective: Identify and analyze morphemes in text.

Activity:

- Give students a short passage or list of words.
- Challenge them to underline or highlight prefixes, roots, and suffixes.
- Discuss how each morpheme contributes to the meaning of the word.
- **Example:** In the word *unbelievable*, students would identify *un-* (prefix), *believe* (root), and *-able* (suffix).

7. Root Word Relay

Objective: Reinforce the meanings of root words.

Activity:

- Split the class into teams.
- Give each team a set of root words and definitions (e.g., *bio-* = life, *graph-* = write).
- Teams race to match roots with their meanings and create new words (*biography*, *autograph*).

8. Word Morphology Bingo

Objective: Build awareness of morphological elements in a fun format.

Activity:

- Create Bingo cards with a mix of roots, prefixes, and suffixes.
- Call out definitions or examples, and students mark the corresponding morphemes on their cards.
- The first student to complete a line wins.

9. Create-A-Word Challenge

Objective: Foster creativity and morphological application.

Activity:

- Offer students with a list of prefixes, suffixes, and roots.
- Challenge them to create new words by combining these elements.
- Have them explain the meaning of their invented words.
- **Example:** Combining *tele-* (distant) and *-scope* (to see) to form a *telescope*.

10. Morphological Sentence Expansion

Objective: Practice using derived words in context.

Activity:

- Provide a simple sentence, such as *The boy plays*.
- Challenge students to expand it using derived forms of *play* (e.g., *The playful boy replayed the game*).

11. Morphology Jeopardy

Objective: Test knowledge of morphemes in a competitive setting.

Activity:

- Create a Jeopardy-style game with categories like "Prefixes," "Suffixes," "Root Meanings," and "Word Origins."
- Students answer questions like "What does the prefix *pre-* mean?" or "Create a word with the suffix *-ful*."

12. Analogies with Morphology

Objective: Deepen understanding of word relationships.

Activity:

- Provide analogies based on morphological patterns.
- **Example:** *Teacher is to teach as runner is to ____* (run).
- Discuss how morphological changes indicate roles, actions, or properties.

13. Word Meaning Investigations

Objective: Build etymological and morphological understanding.

Activity:

- Investigate the origin of a word (e.g., *biology*: *bio-* = life, *-logy* = study).

14. Breaking Down Affixes:

- Separate roots, prefixes, and suffixes.
- Activity: Analyze words (e.g., "unhappiness" → "un-", "happy," "-ness") and create new words by adding/removing affixes.

15. Word Families:

- Explore related words (e.g., "act," "action," "active").
- Activity: Group words by shared roots and discuss their meanings.

SYNTAX (SENTENCE STRUCTURE)

Syntactic Awareness Activities for Children

Syntactic awareness refers to the ability to recognize and manipulate the structure of sentences, enabling children to understand grammar and construct meaningful sentences. Below are engaging activities designed to develop syntactic awareness in children:

1. Sentence Scramble

Objective: Teach sentence structure and word order.

Activity:

- Provide students with a set of word cards or a digital tool where each card has a single word (e.g., *dog*, *the*, *ran*, *fast*).
- Mix the cards and challenge students to rearrange them into grammatically correct sentences.
- Gradually increase the complexity of the sentences.
- Rearrange jumbled words to form grammatically correct sentences.
- Activity: Use pre-prepared sets of words to practice different sentence structures.
- **Example:** Scrambled: *ran fast the dog*. Correct: *The dog ran fast*.

2. Build-a-Sentence Game

Objective: Practice combining words to create meaningful sentences.

Activity:

- Write down words on small cards, including subjects (*The cat*), verbs (*jumps*), and objects (*on the mat*).
- Let students draw cards from each category to form sentences.
- Discuss whether the sentences are grammatically correct and make sense.

Variation: Add modifiers (e.g., *quickly*, *happily*) to encourage sentence expansion.

• Expanding Sentences:

- Start with a simple sentence and add modifiers or clauses.
- Activity: Transform "The cat sleeps" to "The tired cat sleeps on the warm couch."

3. Sentence Sorting

Objective: Distinguish between correct and incorrect sentences.

Activity:

- Provide a mix of correct and incorrect sentences (e.g., *He is playing soccer* vs. *Playing soccer is he*).
- Ask students to identify the correct sentences and explain why they are grammatically accurate.
- Use examples relevant to their interests for added engagement.

4. Sentence Completion

Objective: Enhance understanding of sentence structure and grammar.

Activity:

- Give students incomplete sentences (e.g., *The boy ____ the ball*).
- Ask them to fill in the blanks with appropriate words (e.g., *threw, caught*).
- Discuss why certain words work and others don't in the context of the sentence.

5. Transform the Sentence

Objective: Teach syntactic transformations and flexibility.

Activity:

- Provide a simple sentence (e.g., *The cat is sleeping*).
- Challenge students to transform it into different forms from statements:
 - Negative: *The cat is not sleeping*.
 - Question: *Is the cat sleeping?*
 - Expanded: *The black cat is sleeping on the mat*.

6. Syntax Detective

Objective: Encourage error detection and correction.

Activity:

- Present students with sentences containing grammatical errors (e.g., *She go to school yesterday.*).
- Ask them to find and fix the errors.
- Discuss the rules that were broken and how they corrected them.

7. Picture-Sentence Match

Objective: Connect visual and linguistic information.

Activity:

- Provide students with a set of pictures and sentences.
- Ask them to match the correct sentence to the corresponding picture.

Example:

- Picture: A dog chasing a ball.
- Sentence: *The dog is chasing the ball*.

8. Expand the Sentence

Objective: Encourage creativity and grammatical accuracy.

Activity:

- Provide a basic sentence (e.g., *The girl ran*).
- Challenge students to expand it by adding:
 - Adjectives: *The young girl ran*.
 - Prepositional phrases: *The young girl ran across the park*.
 - Adverbs: *The young girl ran quickly across the park*.

9. Story Sequencing

Objective: Practice sentence ordering and coherence.

Activity:

- Provide a set of sentence strips that tell a short story but are out of order.
- Have students arrange the sentences in the correct sequence to form a coherent story.
- **Example:**
 - Strips: *The boy woke up. He ate breakfast. He brushed his teeth.*
 - Correct Order: *The boy woke up. He brushed his teeth. He ate breakfast.*

10. Cloze Activities

Objective: Develop understanding of sentence structure through context.

Activity:

- Provide a passage with missing words (e.g., *The ____ is eating an apple*).
- Ask students to fill in the blanks with appropriate words (e.g., *boy, girl*).
- Discuss how the chosen words fit grammatically and contextually.

11. Subject-Verb Agreement Practice

Objective: Reinforce the importance of subject-verb agreement.

Activity:

- Present sentences with errors in subject-verb agreement (e.g., *The dogs barks loudly*).
- Ask students to correct the errors (*The dogs bark loudly*).

- Explain why the changes are necessary.

12. Syntactic Awareness Bingo

Objective: Make learning syntax fun and interactive.

Activity:

- Create Bingo cards with grammatical elements (e.g., *verb*, *adjective*, *subject*).
- Call out sentences, and students identify and mark the correct grammatical element on their cards.

13. Peer Editing

Objective: Foster collaborative learning and syntactic awareness.

Activity:

- Have students write short paragraphs and exchange them with peers.
- Ask them to review and suggest corrections for sentence structure and grammar.
- Provide guidance on constructive feedback.

14. Sentence Stretching

Objective: Teach how to add details to sentences.

Activity:

- Start with a short sentence (e.g., *The dog barked*).
- Take turns adding details to make it longer and more descriptive (e.g., *The big dog barked loudly at the stranger by the gate*).

15. Grammar Charades

Objective: Reinforce grammatical concepts through movement and fun.

Activity:

- Write grammatical concepts (e.g., *verb*, *adjective*, *noun*) on slips of paper.
- Students draw a slip and act out or describe a sentence using the concept while others guess

COMPREHENSION (UNDERSTANDING AND PROCESSING)

1. Summarizing Practice:

- Break down a paragraph into its main idea and supporting details.
- Activity: Read a short passage and write a one-sentence summary.

2. Prediction Tasks:

- Predict what happens next in a story based on context.
- Activity: Pause while reading a story and guess the next event.

3. Context Clues Exercise:

- Use neighboring text to infer the meaning of unfamiliar words.
- Activity: Highlight unknown words in a sentence and deduce their meanings.

4. Q&A Sessions:

- Answer questions about a text to ensure understanding.
- Activity: Use texts with guided questions that focus on who, what, where, when, and why.

3. GOAL-SETTING: Establishing clear, measurable objectives for language learning

a. Setting Achievable Goals

Purpose: Design tasks that are attainable and aligned with the learner's abilities and interests.

Steps:

i. Prioritize Consistency:

- Concentrate on the objectives that can be achieved in short, regular intervals (e.g., 10–15 minutes per day).
- Example: “Spend 10 minutes practicing speaking with a language app.”

ii. Personalize Goals:

- Tailor tasks to the learner's interests and daily life.
- Example: For a learner interested in cooking, a goal might be, “Learn 3 cooking-related verbs in the target language.”

b. Implement a Behavioral Activation Plan

Purpose: Create a structured plan for consistent goal-setting and achievement.

Steps:

i. Daily or Weekly Goals:

- Set a mix of short-term (daily) and medium-term (weekly) goals.
- Example:

i. Daily: “Translate 3 sentences into the target language.”

ii. Weekly: “Have a 5-minute conversation with a language partner.”

ii. Reward Success:

- Pair each completed goal with a small, meaningful reward (e.g., taking a break, enjoying a favorite activity).
- Reinforce positive feelings associated with achievement.

iii. Track Progress:

- Use a journal or digital tool to record completed tasks and reflect on progress.

b. Example: Check off goals on a checklist or log achievements in a language-learning app.

c. Address Emotional Barriers

Purpose: Reduce avoidance behaviors and enhance emotional resilience.

Steps:

i. Cognitive Reframing:

a. Replace negative thoughts like “I’ll never be fluent” with affirmations like “Each small step helps me improve.”

ii. Mindfulness Techniques:

a. Teach grounding exercises (e.g., deep breathing) to manage anxiety during challenging tasks.

iii. Social Support:

a. Encourage learners to share goals with peers, family, or a language coach for accountability and encouragement.

d. Evaluate and Adjust Goals

Purpose: Ensure the plan remains effective and motivating.

Steps:

i. Regular Check-Ins:

- Review progress weekly to discuss successes and challenges.
- Adjust the difficulty of goals based on feedback and progress.

ii. Celebrate Milestones:

- Acknowledge significant achievements (e.g., completing a 30-day streak) with larger rewards or recognition.

iii. Adapt Goals as Needed:

- Gradually increase the complexity of tasks as the learner builds confidence and proficiency.

4. SELF-MONITORING: Tracking progress and identifying patterns in language use and learning

Monitor Long-Term Momentum

Purpose: Sustain motivation and ensure that behavioral activation leads to lasting habits.

Steps:

i. Encourage Reflective Practices:

- Have learners reflect on their journey to recognize how far they’ve come.
- Example: Writing about how achieving small goals has improved their confidence.

ii. Build Toward Larger Goals:

- Integrate initial successes into more ambitious tasks (e.g., presenting in the target language, reading a short story).

iii. Maintain Flexibility:

- Allow for breaks or adjustments to prevent burnout and sustain interest in learning.

5. SELF-REGULATION:

i. Self-Monitoring Practices:

- Introduce tools like:
 - Progress journals: Record daily achievements, challenges, and learning strategies.
 - Habit trackers: Mark completion of language activities (e.g., practicing speaking, listening to podcasts).

ii. Emotion Regulation Activities:

- Teach CBT-inspired techniques:
 - **Cognitive reframing:** Turn thoughts like “I’ll never master grammar” into “Mistakes are part of learning.”
 - **Relaxation exercises:** Use breathing techniques before speaking practice to reduce anxiety.
 - **Visualization:** Imagine succeeding in a challenging task, such as giving a presentation in the target language.

iii. Behavioral Activation:

- Encourage students to commit to brief, regular study sessions (e.g., 15 minutes of focused practice).
- Pair language tasks with immediate rewards (e.g., a break or a favorite activity after practice).

iv. Reflective Learning:

- Integrate structured reflection:
 - “What worked well in today’s study session?”
 - “What can I improve tomorrow?”

v. Scenario-Based Learning:

- Create tasks that simulate real-life language use (e.g., ordering at a café in the target language).
- Encourage self-evaluation after each activity using prompts like:
 - “What strategies helped me succeed?”
 - “What emotions did I feel during the activity?”

vi. Peer Collaboration:

- Form accountability groups where learners share goals and track progress together.
- Incorporate peer feedback to enhance motivation and emotional support.

vii. **Regular Check-Ins:**

- Provide individualized feedback during check-ins, emphasizing learners' self-regulation progress.
- Use tools like quizzes, oral assessments, or vocabulary tests to track objective outcomes.

viii. **Adjust Goals and Strategies:**

- Encourage learners to revise goals based on progress.
- Introduce alternative strategies if learners encounter persistent challenges (e.g., using language apps or switching study techniques).

FINDINGS and DISCUSSION

Findings

1. Language Skills Improvements

Pretest and Post-test Scores for evaluating the impact of CBT on language learning interventions on Experimental group:

| S.No. | Skill Assessed | Pretest Score | Post-test Score | Percentage Improvement | Notes/Comments |
|-------|---------------------------------|---------------|-----------------|------------------------|---|
| 1 | Phonological Skill (PS) | 45 | 75 | 66.67% | Significant improvement in minimal pair recognition |
| 2 | Morphological Skill (MS) | 50 | 80 | 60.00% | Mastery of prefix/suffix activities observed |
| 3 | Syntactic Skill (SS) | 40 | 70 | 75.00% | Better sentence formation and error detection |
| 4 | Comprehension Skill (CS) | 55 | 85 | 54.55% | Improved summarizing and context clue usage |

2. Language Skills Improvements (Experimental vs. Control Group)

The impact of CBT on language learning was evaluated across four key linguistic domains. The experimental group consistently outperformed the control group:

| Skill Assessed | Control Group | Experimental Group | Percentage Difference |
|---------------------------------|---------------|--------------------|-----------------------|
| Phonological Skill (PS) | 36.72% | 66.67% | +29.95% |
| Morphological Skill (MS) | 28.38% | 60.00% | +31.62% |
| Syntactic Skill (SS) | 14.82% | 75.00% | +60.18% |
| Comprehension Skill (CS) | 15.02% | 54.55% | +39.53% |

• **Phonological Skill (PS):** A 66.67% improvement in the experimental group underscores the efficacy of phonological awareness training, particularly minimal pair recognition.

• **Morphological Skill (MS):** The mastery of prefix/suffix activities contributed to a 60.00% improvement, highlighting the benefit of morphological word trees and word-building exercises.

• **Syntactic Skill (SS):** The highest improvement (75.00%) demonstrates the effectiveness of activities like sentence scrambling and sentence expansion in teaching syntactic structures.

• **Comprehension Skill (CS):** A 54.55% improvement indicates better-summarizing abilities and the effective use of context clues.

3. Behavioral and Emotional Strength Improvements

Pretest and Post-test Scores for evaluating the impact of CBT on behavioral interventions across different domains in the Experimental group:

| S. No. | Domain | Pretest Score | Post-test Score | Percentage Improvement | Notes/Comments |
|--------|-----------------------------------|---------------|-----------------|------------------------|--|
| 1. | Interpersonal Strength (IS) | 50 | 70 | 40.00% | Observed improved social interactions. Noticeable increase in peer interactions |
| 2. | Family Involvement (FI) | 55 | 75 | 36.36% | Better communication with family members. More active participation in family activities |
| 3. | Intrapersonal Strength (IaS) | 48 | 65 | 35.42% | Enhanced self-awareness and emotional regulation. Improved self-discipline and motivation |
| 4. | School Functioning (SF) | 55 | 72 | 30.91% | Significant improvement in academic engagement. Positive emotional coping strategies were developed. |
| 5. | Affective Strength (AS) | 58 | 77 | 32.76% | Increased emotional expression and understanding. Enhanced classroom behavior |
| 6. | Supplemental Career Strength (CS) | 62 | 75 | 20.97% | Greater focus on future career goals Better clarity on career ambitions |

4. Behavioral and Emotional Strength Improvements (Experimental vs. Control Group)

The integration of CBT significantly improved emotional and social outcomes compared to the control group:

| Domain | Control Group | Experimental Group | Percentage Difference |
|-----------------------------------|---------------|--------------------|-----------------------|
| Interpersonal Strength (IS) | 30.65% | 40.00% | +9.35% |
| Family Involvement (FI) | 23.72% | 36.36% | +12.64% |
| Intrapersonal Strength (IaS) | 22.28% | 35.42% | +13.14% |
| School Functioning (SF) | 14.73% | 30.91% | +16.18% |
| Affective Strength (AS) | 11.26% | 32.76% | +21.50% |
| Supplemental Career Strength (CS) | 9.53% | 20.97% | +11.44% |

- **Interpersonal and Family Involvement:** Improvements in social interactions and communication with family indicate that CBT effectively reduces social anxiety and builds interpersonal skills.
- **Intrapersonal Strength:** Enhanced emotional regulation and self-discipline reflect the efficacy of CBT in fostering self-awareness.
- **School Functioning:** A 30.91% improvement indicates better academic engagement and the adoption of positive emotional coping strategies.
- **Affective Strength:** The highest percentage gain (32.76%) demonstrates improved emotional expression and understanding, which is critical for classroom behavior.
- **Supplemental Career Strength:** Gains in this domain suggest increased clarity and focus on future career aspirations.

Discussion

1. Language Learning Impact The experimental group's superior performance highlights the effectiveness of CBT interventions. Techniques like cognitive restructuring, task breakdown, and goal setting addressed cognitive and emotional barriers to language learning:

- **Phonological and Morphological Skills:** CBT-enabled scaffolding of complex tasks into manageable steps ensured better retention and application of phonological and morphological knowledge.
- **Syntactic and Comprehension Skills:** Activities emphasizing sentence formation and context-driven comprehension fostered linguistic proficiency and confidence.

2. Behavioral and Emotional Growth CBT's integration in educational settings yielded measurable benefits in behavioral and emotional domains:

- **Improved Self-Regulation:** Students gained control over anxiety and developed a growth mindset, enabling them to engage more effectively in academic and social settings.
- **Enhanced Social Interactions:** Peer and family relationships improved due to reduced stress and increased emotional intelligence.

3. Control vs. Experimental Group The stark contrast in performance between the control and experimental groups underscores CBT's value:

- The control group, relying solely on traditional educational approaches, demonstrated limited improvement, particularly in syntactic and comprehension skills and emotional domains like affective strength.
- The experimental group achieved substantial progress, affirming the dual impact of CBT on academic and emotional development.

4. Broader Implications The findings advocate for the broader adoption of CBT in schools to:

- Address the emotional needs of students alongside academic challenges.
- Provide teachers with tools to foster inclusive, supportive learning environments.

Concluding remarks

In conclusion, the study highlights CBT's transformative potential in bridging cognitive and emotional gaps for children with learning disabilities, ensuring holistic development. However, it is important to note that while the integration of CBT techniques in language instruction for children with learning disabilities shows promising results, more research is needed to understand its long-term effects fully and to develop standardized protocols for implementation in educational settings.

The qualitative data and data analysis indicate that participants who underwent CBT experienced significant improvements in several key areas compared to the control group. These areas include increased confidence, reduced anxiety, improved academic performance, positive teacher feedback, and positive parental observations. The results strongly suggest that CBT is an effective intervention for enhancing students' academic and emotional well-being.

Recommendations

1. Implement CBT Programs: Schools should consider implementing CBT programs to help students improve their confidence, reduce anxiety, and enhance academic performance.

2. Training for Teachers: Teachers should be trained to recognize and support students who may benefit from CBT and provide positive feedback to reinforce their progress.

3. Parental Involvement: Schools should engage parents in the process, providing them with information on how CBT can benefit their children and how they can support these efforts at home.

4. Further Research: Additional studies with larger sample sizes and diverse populations should be conducted to confirm these findings and study the long-term effects of CBT on student outcomes.

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