People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

University of Tlemcen

Faculty of Letters and Languages
Department of English

Integrating and Exploring Linguistic and Psychological Strategies for Teaching Hyperactive Children in the Middle School.

Dissertation submitted to the Department of English as a partial fulfilment of the requirements for Master's degree in Didactics of Foreign Languages Under Ministerial Decree 1275 for Newly Established Institution "Label".

Presented by:

Ms. Hanifa BELABBAS

Ms. Maliha BAHBAH

Supervised by:

Mr. Slimane MEGHAGHI

Board of Examiners:

Prof. Abdelkader BENSAFA	Professor	President
Mr. Slimane MEGHAGHI	MAA	Supervisor
Dr. Kamila GHOUALI	MCA	Examiner
Dr. Khedidja HAMMOUDI	MCA	BMC Expert
Ms. Hiba SALAOUANDJI		Socio-Economic Partner

2024 - 2025

Dedication - For Hanifa

This work is dedicated to my hero and grandfather, Benammar Sahli, whose enduring love and presence continue to resonate deeply within my soul. It is through your encouragement and the cherished memories you left in my mind that your little Hanifa reached this milestone.

To my beloved parents, Mohamed and Yamina, whose boundless love and guidance have been the foundation of my journey. To my brother, Hafid, my anchor and first best friend, whose love and presence have illuminated every step of this path. To my sister, Nadjet, whose patience and kindness have been a source of comfort through moments of challenge. To my sister-in-law, Hiba, whose thoughtful care has been a blessing throughout this year. This achievement is as much yours as it is mine.

I extend my heartfelt gratitude to my best girls in life Houda, Rania, and Dounia, whose beliefs in my potential, even in its earliest stages, has been invaluable. To all my family and friends, thank you for your encouragement and for standing by me through every trial.

Finally, to my extraordinary partner, Maliha, whose special support and love have been my greatest strength. This work is a testament to your enduring presence in my life.

I am so grateful to have you all by my side.

Dedication - For Maliha

It is difficult to find the right words to express what I feel today. I would like to offer my deepest gratitude and appreciation to my dear father "Fouzi" and beloved mother "RAHMOUN Amina", who have supported me every step of the way. Thank you for your endless support and your love that has been the light that has illuminated my path. This success is the fruit of your hard work and sacrifices, and I dedicate it to you with pride.

I also extend my sincere thanks to my sister "Radia", my nephews "Ilyes" "Anes" "Adem" and to my brothers "Reda" and "Choukri", who have always been a source of motivation and comfort, and who have consistently lifted me during both joyful and challenging moments. To my special best friend "Wissem", whose love and presence is what kept me always motivated even in hard times.

I am especially grateful to my wonderful partner "Hanifa" whose love, dedication, and support have been a true blessing. Her encouragement and companionship have made every step of this journey brighter and more meaningful.

Finally, I extend my heartfelt thanks to my family and friends for their continuous support, understanding, and encouragement.

This dissertation is not only the result of personal effort, but also a reflection of all the love, trust, and support I have received.

Thank you, from the bottom of my heart.

Acknowledgements

It is with deep gratitude that we acknowledge our supervisor, Professor Meghaghi Slimane , for their exceptional guidance and steadfast support, which have been instrumental throughout this research project.

We also wish to express our sincere appreciation to our co-supervisor, Professor Bensafa Abdelkader , whose invaluable insights and unwavering encouragement have significantly enriched this work. We extend our thanks to the board of examiners for their insightful and constructive feedback. Special acknowledgment is due to the educators and professionals working with hyperactive children, whose collaborative spirit and inspiration have been vital to this study. Furthermore, we extend our gratitude to the hyperactive children themselves for the funny moments and experiences they shared, which provided unique insights.

Finally, we are profoundly grateful to our classmates for support and encouragement, and to our friends for their enduring patience and understanding during this academic journey.

ABSTRACT

Hyperactivity, characterized by impulsivity, inattention, and excessive motor activity, can significantly hinder a child's ability to focus, process information, and follow classroom routines. These challenges often affect not only academic achievement but also social interactions and emotional regulation. The study investigates the causes of hyperactivity, including genetic, neurodevelopmental, and environmental factors, and their impact on learning, behavior, and language acquisition. This study explores effective pedagogical methods for teaching hyperactive children, integrating principles from linguistics and psychology to address the unique challenges they face in the classroom. The research delves into how linguistic strategies, such as clear communication, engaging language techniques, and pragmatic discourse, can capture the attention of hyperactive learners and improve their participation in class. Additionally, psychological approaches such as positive reinforcement, behavior management, and structured routines are explored to create a supportive classroom environment that fosters learning and emotional stability. A mixed-methods approach, including a pupils' questionnaire, classroom observations, and interviews with teachers, doctors and psychologists was employed to gather data on effective strategies and challenges faced by educators. The study seeks to combine linguistic and psychological strategies, when tailored to individual needs, so as to significantly improve academic performance, emotional regulation, and social integration for hyperactive children. The findings underscore the importance of dynamic, adaptive teaching methodologies that provide a holistic approach to supporting hyperactive pupils in the classroom. The research aims to contribute to a deeper understanding of how integrated linguistic and psychological approaches can be effectively implemented to enhance educational outcomes and overall well-being for hyperactive children.

Table of Content

List of Abbreviations and Acronyms

ELT	English Language Teaching
UFC	University of Continuing Education
ICT	Information and Communication Technologies
MPTIC	Minister of Posts and Information and Communication Technologies
MESR	The Ministry of Higher Education and Scientific Research
LMD	License, Master, Doctorate
DSL	Digital Subscriber Lines
MOODLE	Modular Object-Oriented Dynamic Learning Environment
LMS	Learning Management Systems
IHEP	The Institute for Higher Education Policy
L2	Second Language

List of Tables

List of Figures

General Introduction

In recent years, increasing attention has been directed toward the educational challenges faced by pupils with Attention-Deficit/Hyperactivity Disorder (ADHD), particularly in middle school settings. Hyperactivity a core feature of ADHD often manifests through inattention, impulsivity, and difficulty following instructions or remaining seated, all of which disrupt traditional teaching models. These behaviors not only hinder academic performance but also strain peer relationships and teacher-pupil interactions. In the Algerian school system, where classroom sizes are often large and pedagogical resources limited, supporting hyperactive pupils remains a significant concern. As such, the integration of psychological insight with linguistic adaptation emerges as a crucial strategy for improving learning outcomes and promoting inclusion.

This study is based in two middle schools in the Tlemcen region: El Maqari Middle School and Ben Moussa Yahia Middle School. These institutions reflect typical Algerian public schools that integrate pupils with diverse profiles, including those with behavioral challenges, into mainstream classrooms. The research addresses a clear gap between the needs of hyperactive pupils and the support strategies available to their teachers. Using classroom observations, teacher and psychologist interviews, and pupil questionnaires, the study investigates how psychological and linguistic methods can be unified to better support these learners.

Despite global awareness of ADHD, many Algerian educators remain underprepared to address hyperactivity in the classroom. Pupils with ADHD frequently underperform not due to a lack of intelligence or motivation, but because instruction is not adapted to their cognitive and behavioral needs. This mismatch between teaching style and pupil need often results in classroom disruption, emotional distress, and academic underachievement. Furthermore, interdisciplinary strategies particularly those integrating linguistics and psychology are rarely applied in Algerian schools.

The core problem this study investigates is: How can we better support hyperactive pupils through the integration of linguistic and psychological teaching methods? The main research question guiding the study is: How can linguistic and psychological strategies be effectively integrated to enhance the learning experiences of hyperactive pupils in Algerian middle schools?

From this, several sub-questions emerge:

- What specific challenges do hyperactive pupils face in classroom settings?
- How do teachers currently respond to these challenges?
- What roles do linguistic simplification and psychological support play in improving engagement and behavior?
- How do pupils perceive the teaching methods used with them?

The study is based on three main hypotheses:

1. Hyperactive pupils respond more positively to teaching strategies that incorporate both linguistic adaptation and psychological support.
2. Teachers who receive guidance or collaborate with psychologists demonstrate better classroom management outcomes.
3. Pupils show higher engagement when lessons are interactive, visual, and emotionally supportive.

This study holds particular significance as it addresses a critical gap in local research on ADHD in Algeria. While international literature offers a foundational understanding, few studies explore the specific realities faced by Algerian teachers and pupils. Through practical classroom observations, pupil feedback, and expert psychological

perspectives, this research offers applicable recommendations for educators, school leaders, and policymakers.

The interdisciplinary focus of the study reinforces the view that effective education requires addressing both cognitive and emotional dimensions. The research adopts a qualitative framework and employs a mixed-methods approach to data collection and triangulation. Instruments include a questionnaire distributed to 200 pupils (with 50 ADHD-relevant responses analyzed), semi-structured interviews with 5 middle school teachers and 5 private psychologists, and classroom observations of the same 50 pupils to document real-time behavior and instructional responses.

Key terms central to this thesis include ADHD (Attention-Deficit/Hyperactivity Disorder), linguistic adaptation, behavioral management, and inclusive education. These concepts form the foundation of the research. The thesis is organized into three chapters. Chapter one presents the theoretical framework, covering definitions, causes, and learning impacts of hyperactivity, along with relevant linguistic and psychological methods. Chapter Two outlines the research methodology, data collection tools, and analysis of findings providing practical recommendations and reflections to support improved educational practices for hyperactive pupils. Chapter three provides the Business Model Canvas (BMC) proposing a school model specialized in ADHD-focused language instruction.

Chapter One: Literature Review

Chapter One Content

1.1 Introduction

Teaching hyperactive children requires more than traditional instruction; it calls for an understanding that blends psychology, linguistics, and educational science. Hyperactivity, commonly linked to Attention-Deficit/Hyperactivity Disorder (ADHD), involves patterns of inattention, impulsivity, and hyperactivity that affect learning and classroom behavior. ADHD reflects neurodevelopmental delays in executive functioning, which disrupt skills like attention regulation, time management, and impulse control essential abilities in a learning environment. Thus, instruction must be adapted not only to the behavioral symptoms but also to the cognitive profiles of these learners. Several scholars advocate for structured yet flexible approaches. Hyperactive children thrive in classrooms that blend routine with individualized strategies, such as the use of visual cues, flexible transitions, and clear goals. Practical techniques like token reinforcement systems and scheduled breaks can minimize behavioral issues and increase focus. This chapter explores how hyperactivity affects education and how integrating linguistic and psychological approaches can support ADHD learners. Through a review of major theories and strategies, it highlights the need for flexible, informed instruction that empowers these children rather than merely managing their behavior.

1.2 An Overview on Hyperactivity

Hyperactivity is a complex behavioral condition that presents significant challenges in educational contexts, particularly when associated with Attention-Deficit/Hyperactivity Disorder (ADHD). While the term "hyperactivity" is often used informally to describe energetic or restless behavior, in clinical and educational settings it refers to persistent patterns of excessive movement, impulsivity, and difficulty sustaining attention that are inappropriate for a child's developmental level (American Psychiatric Association, 2013). Hyperactivity manifests through behaviors such as fidgeting, running or climbing in inappropriate settings, interrupting conversations, and a general inability to remain still or focused for extended periods. These behaviors become particularly problematic in structured environments like classrooms, where sustained attention and self-regulation are expected.

The understanding of hyperactivity has evolved significantly over time. Historically, it was viewed as a purely behavioral issue, often attributed to poor discipline or lack of effort. However, contemporary research has reframed it as a neurodevelopmental condition rooted in atypical brain development and functioning. Barkley (1997) introduced the concept of impaired executive function as central to ADHD and hyperactivity, proposing that affected individuals struggle with behavioral inhibition, time management, and goal-oriented planning. This shift in perspective led to a deeper appreciation of how neurological and cognitive factors interact with environmental expectations to shape behavior.

Recent studies have continued to highlight the multifaceted nature of hyperactivity. Shaw et al. (2007) used neuroimaging to show that children with ADHD exhibit a delay in cortical maturation, particularly in areas related to attention and impulse control. This delay helps explain why children with hyperactivity may appear developmentally immature in their behavior, even if their intellectual abilities are average or above average. Moreover, Volkow et al. (2009) found that dopamine dysregulation in the brains of individuals with ADHD affects reward sensitivity and motivation, contributing to difficulties in staying focused on tasks that lack immediate

gratification. These neurobiological insights have significantly shaped the way educators and clinicians conceptualize hyperactivity in children.

Importantly, hyperactivity does not present uniformly across all individuals. The severity and type of symptoms can vary depending on factors such as age, gender, and comorbid conditions. For instance, boys are more frequently diagnosed with hyperactive symptoms than girls, who may display more inattentive behaviors (Faraone & Mick, 2010). Additionally, some pupils may exhibit primarily hyperactive-impulsive behaviors, while others may show a combined presentation that includes significant attention deficits. This variability underscores the importance of personalized observation and assessment before implementing interventions.

In summary, hyperactivity is best understood not as a simple behavioral excess but as a symptom of underlying neurological and developmental differences. The evolving research into its cognitive and biological foundations has shifted the discourse from blame and discipline to understanding and support. As we delve further into this chapter, this foundational overview will support a more nuanced examination of the causes, effects, and educational responses to hyperactivity in the school setting.

Hyperactivity, particularly in the context of educational and psychological studies, is most commonly defined as a pattern of excessive motor activity, impulsivity, and inattention that significantly interferes with functioning or development. According to the American Psychiatric Association (2013), hyperactivity is one of the core symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD), which is classified as a neurodevelopmental disorder. It includes behaviors such as constant fidgeting, restlessness, talking excessively, interrupting others, and difficulty waiting for turns. These behaviors must persist for at least six months, appear before the age of twelve, and be inconsistent with the developmental level of the child to meet diagnostic criteria.

While the DSM-5 provides a clinical framework, other definitions of hyperactivity expand the concept to include cognitive and emotional dysregulation. Barkley (2014) emphasizes that hyperactivity is not limited to physical restlessness but

is also associated with impairments in attention regulation, impulse control, and motivation. This broader perspective shifts the focus from purely behavioral symptoms to a more integrated understanding of the challenges hyperactive individuals face.

Educational psychologists often define hyperactivity in terms of its impact on academic performance and classroom behavior. DuPaul and Stoner (2014) describe it as a condition that disrupts structured learning environments by making it difficult for pupils to follow rules, complete assignments, or remain seated. These definitions highlight the importance of context: a behavior may be considered hyperactive in a quiet classroom but not on a playground. Therefore, understanding hyperactivity requires not only clinical insight but also a sensitivity to the social and educational settings in which it is observed.

1.2.1 Theoretical Framework

Theoretical understanding of hyperactivity has evolved significantly, moving from behavioral explanations to multidimensional models that integrate cognitive, neurological, and psychological perspectives. One of the most widely accepted frameworks is Barkley's theory of behavioral inhibition, which posits that deficits in self-regulation are at the core of hyperactivity (Barkley, 1997). According to this model, children with ADHD struggle with delaying responses, suppressing irrelevant behaviors, and using internal language to guide actions. These impairments affect a wide range of executive functions, such as working memory, emotional self-control, and planning all of which are essential for academic success.

Neurodevelopmental models further enrich this perspective. Shaw et al. (2007) used neuroimaging to show that hyperactivity is associated with delayed cortical maturation, particularly in the prefrontal cortex. This area is responsible for higher-order thinking, attention regulation, and decision-making. These findings support the idea that hyperactivity is not simply a behavioral problem but a result of developmental lag in brain function. Volkow et al. (2009) also provide a neurological angle by emphasizing the role of dopamine transporters and their influence on reward sensitivity, helping

explain why hyperactive children often struggle with delayed gratification and motivation in academic settings.

From an educational standpoint, DuPaul and Stoner (2014) advocate for an ecological theory, where hyperactivity is understood within the broader context of classroom environment, teacher-pupil interaction, and learning demands. This approach emphasizes that behavior is not isolated but affected by surroundings a view that aligns with real-world teaching experiences. Combining these theories offers a richer, more realistic framework that guides both diagnosis and intervention strategies in educational psychology.

1.2.2 Main Studies

A significant body of research has shaped our understanding of hyperactivity, particularly in relation to Attention-Deficit/Hyperactivity Disorder (ADHD). One of the foundational studies is by Barkley (1997), who introduced the concept of executive function deficits as a central explanation for the behavioral symptoms of ADHD. His work shifted the focus from surface-level behavior to internal cognitive regulation, laying the groundwork for modern educational interventions that target working memory, time management, and impulse control.

Neuroscientific research has also played a vital role in identifying the biological underpinnings of hyperactivity. Shaw et al. (2007) conducted longitudinal MRI studies showing delayed cortical maturation in children with ADHD, particularly in the prefrontal cortex an area responsible for attention, planning, and behavioral inhibition. These findings provide a biological explanation for the developmental delays often observed in hyperactive children, reinforcing the argument that hyperactivity is not a matter of willpower or discipline but a result of brain-based differences.

Complementing these biological perspectives, Volkow et al. (2009) explored dopamine regulation in individuals with ADHD. Their findings suggest that lower dopamine activity in the brain's reward pathway contributes to impulsivity and the

difficulty in maintaining attention on non-stimulating tasks. This helps explain why hyperactive children may be easily distracted in traditional classroom settings.

From a psychological and behavioral lens, Fabiano et al. (2009) conducted a meta-analysis on behavioral treatments for ADHD and found that consistent structure, positive reinforcement, and teacher involvement significantly improve classroom behavior. Collectively, these studies form a multidimensional understanding of hyperactivity that integrates biology, behavior, and education.

1.3 Factors Influencing Hyperactivity

Hyperactivity is not the result of a single cause but rather a complex interaction of genetic, biological, environmental, and lifestyle factors. Research has shown that some children are genetically predisposed to hyperactive behavior, while others may develop it due to prenatal or postnatal influences, family dynamics, or even diet. This multifactorial understanding has shifted the conversation from labeling hyperactivity as a disciplinary issue to viewing it as a condition shaped by both nature and nurture (Faraone & Mick, 2010).

Genetic studies provide compelling evidence that ADHD, and by extension hyperactivity, has a strong heritable component. Faraone and Mick (2010) report that up to 76% of ADHD traits can be attributed to genetics. These findings are supported by studies on identical twins and family clusters, where hyperactive traits appear across generations. However, as Barkley (2014) notes, genetic predisposition does not guarantee that a child will exhibit hyperactivity; environmental stressors often interact with inherited traits to trigger or intensify symptoms.

Environmental influences are equally significant. DuPaul and Stoner (2014) emphasize that chaotic home environments, inconsistent parenting, or early trauma can increase the risk of developing hyperactive behavior. Children exposed to high-stress environments or lacking emotional support may exhibit more pronounced impulsivity and attention difficulties. Furthermore, studies like those by McCann et al. (2007) link

hyperactivity to food additives and poor nutrition, suggesting that lifestyle factors also play a role.

Together, these perspectives illustrate that hyperactivity must be understood through a broad lens. Effective interventions must therefore be holistic, taking into account both the child's neurological makeup and their daily environment.

1.3.1 Genetic and Biological Factors

Genetic and biological factors are widely recognized as core contributors to the development of hyperactivity and Attention-Deficit/Hyperactivity Disorder (ADHD). Numerous studies have identified a strong hereditary component, suggesting that children with ADHD often have close relatives who exhibit similar symptoms. Faraone and Mick (2010) estimate the heritability of ADHD to be approximately 76%, making it one of the most genetically influenced psychiatric conditions in childhood. This genetic predisposition helps explain the clustering of hyperactive behaviors within families, particularly among first-degree relatives.

In addition to genetics, biological differences in brain structure and function also play a crucial role. Shaw et al. (2007) found that children with ADHD experience delayed cortical maturation, particularly in the prefrontal cortex, which is associated with executive functions such as impulse control, decision-making, and attention regulation. These structural delays support the observation that hyperactive children often struggle with behaviors requiring long-term focus or self-restraint. The study's use of longitudinal brain imaging highlights the developmental nature of these impairments and provides a biological foundation for understanding hyperactivity as more than just behavioral defiance.

Moreover, neurochemical differences further deepen the biological understanding of the condition. Volkow et al. (2009) emphasize the role of dopamine dysregulation in the ADHD brain, particularly in reward-related pathways. This dysfunction may explain why hyperactive children find it difficult to remain engaged in

activities that do not offer immediate gratification. When these neurological vulnerabilities are combined with environmental stressors, the likelihood of hyperactive symptoms becomes more pronounced, emphasizing the need for comprehensive interventions that account for both biology and context.

1.3.2 Environmental and Social Influences

While genetic and biological factors are critical to understanding hyperactivity, environmental and social influences play an equally important role in shaping how symptoms emerge and develop. Children do not grow in isolation, and the environments they interact with home, school, and community can either buffer or exacerbate hyperactive behaviors. DuPaul and Stoner (2014) highlight that children raised in disorganized or high-stress households are more likely to exhibit symptoms of inattention, impulsivity, and restlessness. Factors such as inconsistent parenting, exposure to conflict, and lack of routine can disrupt a child's ability to regulate emotions and behavior.

Parental involvement, in particular, has been shown to influence behavioral outcomes. Rief (2016) explains that positive reinforcement, structured routines, and emotional support from caregivers can significantly reduce hyperactivity-related disruptions. Conversely, children who experience neglect or overly punitive discipline often lack the emotional regulation skills needed for classroom success. These findings underscore the importance of training and supporting parents in behavior management techniques as part of intervention programs.

The school environment is another key context. According to Fabiano et al. (2009), classroom design, teacher expectations, and peer relationships all affect the manifestation of hyperactivity. For instance, a child placed in an overly stimulating or poorly structured classroom may display more disruptive behaviors than one in a more predictable setting. Social relationships also influence behavior: children with ADHD are more likely to experience peer rejection, which can lead to frustration and even increased symptoms (Brown, 2021). Therefore, addressing environmental and social

variables is crucial to creating supportive learning spaces where hyperactive children can succeed both academically and socially.

1.3.3 Diet, Nutrition, and Lifestyle

In recent years, diet, nutrition, and lifestyle factors have gained attention as influential contributors to hyperactivity in children. Although these elements may not be the primary cause of ADHD, they are increasingly recognized as modifiers that can intensify or alleviate symptoms. McCann et al. (2007) conducted a well-known placebo-controlled study which found that certain artificial food colorings and preservatives could increase hyperactivity levels in both children with and without ADHD. This finding suggests that dietary sensitivities may affect behavior more broadly than once thought and emphasizes the importance of considering food-related triggers in behavior management plans.

Nutritional deficiencies may also play a role. Volkow et al. (2009) discuss how the brain's dopamine system, central to attention and reward processing, is highly sensitive to nutritional balance. Omega-3 fatty acids, iron, zinc, and magnesium have been shown to support cognitive functioning and may be particularly beneficial for children with hyperactive symptoms (Boissiere, 2018). A poor diet lacking in these nutrients could potentially exacerbate impulsivity, distractibility, and restlessness.

Lifestyle habits such as sleep hygiene, physical activity, and screen time exposure are additional elements that can influence hyperactivity. DuPaul and Stoner (2014) note that children with inconsistent sleep patterns are more likely to experience behavioral flare-ups. Likewise, sedentary routines and excessive exposure to fast-paced digital media may worsen symptoms by overstimulating the nervous system or displacing more regulatory activities like exercise or quiet time.

In summary, while diet and lifestyle are not standalone causes of hyperactivity, they are powerful modulators. Managing them carefully offers a natural, supportive

avenue for improving attention, regulation, and overall well-being in hyperactive children.

1.4 The Impact of Hyperactivity on Learning and Behavior

Hyperactivity significantly shapes the educational experience of affected children, often making school environments overwhelming and academically challenging. The constant urge to move, speak, or act without reflection interferes with a child's ability to participate in structured learning tasks. DuPaul and Stoner (2014) explain that hyperactive pupils often struggle with task completion, listening to instructions, and sustaining focus during lessons. These difficulties disrupt not only their own learning process but also the classroom dynamic, placing additional pressure on teachers and peers.

Academically, children with hyperactivity tend to underperform relative to their cognitive potential. Barkley (2014) emphasizes that executive function deficits particularly in attention control and impulse regulation lead to frequent errors, forgotten assignments, and difficulty organizing work. As a result, even pupils with average or above-average intelligence may be mislabeled as careless or unmotivated, which can diminish their self-esteem and engagement.

The behavioral impact extends beyond academics. Hyperactive behavior often disrupts peer interactions and social development. Brown (2021) highlights that impulsive actions such as blurting out answers or invading personal space are frequently misinterpreted by classmates as rudeness, leading to peer rejection. This social exclusion, in turn, reinforces feelings of frustration and may worsen behavioral symptoms over time.

Moreover, the mismatch between a hyperactive child's needs and traditional teaching styles can provoke cycles of disciplinary action. Rief (2016) warns that repeated punishment without understanding the underlying condition may deepen oppositional behaviors. Therefore, addressing the educational and behavioral

consequences of hyperactivity requires not only academic adjustments but also emotional and relational support within the school environment.

1.4.1 Effects on Academic Performance

Hyperactivity presents numerous challenges to academic performance, particularly in environments that rely heavily on sustained attention, task completion, and rule-following. Pupils with hyperactive behaviors often struggle with maintaining focus during instruction, transitioning between activities, and following multi-step directions. According to DuPaul and Stoner (2014), these difficulties stem not from a lack of intellectual ability, but from impairments in executive function, especially in working memory, attention regulation, and goal persistence. As a result, hyperactive pupils may fall behind academically despite showing potential during one-on-one interactions or informal settings.

Barkley (2014) emphasizes that many hyperactive pupils experience what he calls “performance deficits,” where the ability to perform a task is inconsistent due to fluctuating self-regulation. This inconsistency is often misinterpreted by teachers as laziness or disobedience, leading to a mismatch between pupil effort and educator expectations. When this happens repeatedly, pupils may internalize failure and develop low academic self-concept.

Furthermore, Kaufman and Engle (2019) highlight the role of working memory in academic achievement, noting that hyperactive pupils often struggle to hold information in mind long enough to complete complex tasks. This challenge is particularly evident in subjects like mathematics, reading comprehension, and writing, where planning and sequential thinking are essential. Without proper support, such pupils may experience chronic academic underachievement.

Studies such as Fabiano et al. (2009) show that academic interventions tailored to ADHD pupils like breaking tasks into manageable steps and using frequent feedback

can improve outcomes. This reinforces the need for personalized strategies that address the unique cognitive profiles of hyperactive learners.

1.4.2 Effects on Social Interaction

Hyperactivity not only impacts academic functioning but also disrupts social development, often leading to strained peer relationships and emotional difficulties. According to Brown (2021), children with hyperactive tendencies are more likely to engage in behaviors that are perceived by others as intrusive or disruptive, such as interrupting conversations, failing to respect personal boundaries, or dominating group activities. These behaviors often lead to peer rejection, which in turn increases social isolation and lowers the child's sense of belonging in the classroom.

According to Fabiano et al. (2009), hyperactive children frequently struggle to interpret social cues and adjust their behavior accordingly. As a result, they may misread facial expressions, fail to recognize when others are annoyed, or continue a behavior that peers find irritating. These social missteps make it difficult for them to form lasting friendships, and they are more likely to be left out of cooperative tasks or excluded from peer groups.

Rief (2016) emphasizes that the emotional toll of repeated social failure can lead to frustration, low self-esteem, and increased oppositional behavior. Teachers may misattribute these emotional responses as further signs of defiance rather than as indicators of unmet social and emotional needs. In comparison to their non-hyperactive peers, pupils with ADHD require more guidance in developing empathy, turn-taking, and conflict resolution skills.

According to DuPaul and Stoner (2014), structured interventions that include social skills training and peer mediation can significantly improve social outcomes. Addressing social challenges alongside academic needs is therefore essential in supporting the whole development of hyperactive learners.

1.4.3 Classroom Engagement Challenges

Classroom engagement is a fundamental component of academic success, yet for children with hyperactivity, maintaining consistent involvement in learning activities can be particularly difficult. According to DuPaul and Stoner (2014), hyperactive pupils often struggle with the sustained attention and behavioral control required to engage meaningfully in whole-class instruction. Their frequent need for movement, impulsivity, and distractibility can lead them to drift away from tasks, ignore instructions, or act out, which results in fragmented participation and disrupted learning.

According to Barkley (2014), one of the major obstacles to engagement is the delay in self-regulatory development. Pupils with hyperactivity often find it challenging to monitor their behavior, plan ahead, or suppress impulsive reactions. As a result, they may frequently interrupt lessons, leave their seats without permission, or fail to complete assignments even when they are capable of doing so. These patterns make it difficult for them to remain engaged over time, particularly in more passive instructional formats like lectures.

Rief (2016) explains that classroom environments not adapted to the needs of hyperactive pupils tend to exacerbate disengagement. For example, overly rigid routines, minimal physical movement, and high reliance on verbal instruction can contribute to frustration and withdrawal. On the other hand, Fabiano et al. (2009) note that pupils are more likely to remain engaged when instruction is broken into shorter segments, includes hands-on tasks, and provides immediate feedback.

According to Kaufman and Engle (2019), engagement improves when cognitive load is managed properly and when tasks are designed to align with the pupil's working memory capacity and attention span. These strategies support the inclusion and active participation of hyperactive learners in the classroom setting.

1.5 The Role of Linguistics and Psychology in Teaching Hyperactive Children

Teaching hyperactive children effectively requires an interdisciplinary approach that draws heavily on both linguistics and psychology. According to Dodd (2005), children with ADHD often experience challenges in receptive and expressive language, making it essential for educators to adapt their language use and instructional delivery. This includes simplifying sentence structure, avoiding abstract vocabulary, and reinforcing verbal input with visual cues. Language, in this context, is not only a tool for communication but also a scaffold for cognitive processing and behavior regulation.

From a psychological perspective, understanding the internal experiences of hyperactive learners is critical. According to Brown (2021), emotional dysregulation and frustration often underlie disruptive behavior, and without psychological insight, teachers may respond in ways that worsen the issue. Psychological theories such as cognitive-behavioral therapy (CBT) offer practical strategies like structured routines, self-monitoring, and positive reinforcement that help hyperactive pupils manage their behavior more effectively (Safren et al., 2005).

Moreover, integrating linguistic and psychological frameworks allows for a more personalized and responsive teaching approach. According to DuPaul and Stoner (2014), when educators align instructional strategies with both the language processing needs and emotional profiles of ADHD learners, pupil engagement and academic performance improve. This combination is particularly powerful because it addresses both the surface behaviors and the underlying cognitive-emotional mechanisms.

By leveraging these two fields together, teachers can build supportive learning environments that not only manage hyperactivity but also unlock each child's academic and personal potential. This dual-lens approach moves education from behavior control to inclusive empowerment.

1.5.1 The Power of Language

Language plays a critical role in shaping how hyperactive children engage with learning, instructions, and social communication. According to Dodd (2005), children with ADHD often struggle with processing spoken language, which can hinder their understanding of classroom directions, reduce their participation in verbal tasks, and contribute to frustration. These language difficulties are not necessarily due to a lack of intelligence but rather to delays in processing speed, short-term memory challenges, and difficulties interpreting complex syntax.

According to Snowling and Hulme (2021), many hyperactive pupils also have co-occurring language impairments, which can go undetected in fast-paced classroom settings. Such pupils may miss subtle linguistic cues, struggle to formulate coherent responses, or interpret instructions too literally. These linguistic challenges may result in incomplete assignments, incorrect responses, or classroom conflicts due to misunderstandings.

The way teachers use language can either support or obstruct a hyperactive learner's ability to engage. According to Rief (2016), simplifying instructions, breaking them into smaller chunks, and pairing them with visual cues increases understanding and compliance. Teachers who speak calmly, use clear routines, and repeat key points give hyperactive pupils more time to process information and respond appropriately. Furthermore, the consistent use of positive language and specific praise can reinforce desired behaviors and help pupils stay focused.

Language is not only a means of instruction but also a powerful tool for behavior management and emotional support. When used with intention, it can serve as a bridge between the learner's internal processing difficulties and the external expectations of the classroom.

1.5.2 Psychological Theories

Understanding hyperactivity through psychological theories provides educators with the tools to support children beyond surface-level behavior management. According to Barkley (1997), one of the most influential theories explaining ADHD is rooted in deficits in behavioral inhibition, which then impair executive functions such as self-regulation, working memory, and internal speech. This theory suggests that hyperactive children are not intentionally disruptive but are neurologically impaired in their ability to delay responses and reflect before acting.

Cognitive-behavioral theory offers another practical framework. According to Safren , this approach emphasizes the importance of structured thinking, self-monitoring, and reinforcement in modifying behaviors. Hyperactive pupils benefit from predictable routines, goal setting, and immediate feedback, which help them internalize self-regulation strategies. Unlike punitive systems that may escalate defiance or anxiety, cognitive-behavioral strategies empower pupils to reflect on their choices and adjust behavior gradually.

Social learning theory also contributes valuable insights. According to Fabiano et al. (2009), children often imitate the behaviors they observe in others, particularly adults and peers. In the classroom, positive teacher modeling, consistent reinforcement, and peer interaction play a major role in shaping attention and impulse control. This theory supports interventions like peer tutoring, behavior charts, and cooperative learning models that help hyperactive pupils regulate their actions within a social context.

Together, these theories provide a layered understanding of hyperactivity, showing that effective teaching is not about suppressing symptoms but addressing the underlying cognitive and emotional processes. When psychological theories inform instruction, educators can foster environments that support behavioral growth and emotional resilience.

1.5.2.1 Behavioral Inhibition Theory

Behavioral Inhibition Theory, developed by Barkley (1997), provides a foundational understanding of hyperactivity by identifying impaired inhibition as the core deficit in ADHD. According to this theory, the ability to delay responses, suppress inappropriate actions, and reflect before acting is compromised in individuals with ADHD. This lack of behavioral inhibition then disrupts executive functions such as working memory, self-regulation of affect, internalization of speech, and reconstitution (the ability to plan and problem-solve). These executive function deficits are what manifest in the classroom as impulsivity, distractibility, and difficulty with sustained attention.

According to Barkley (2014), the development of inhibition begins early in childhood and is critical for acquiring higher-order cognitive processes. Children who struggle with inhibition often act on impulse, interrupt frequently, or engage in behaviors that seem thoughtless or oppositional. However, this is not a result of intentional misbehavior but of neurological underdevelopment in areas such as the prefrontal cortex, as confirmed by Shaw et al. (2007) through neuroimaging studies.

In educational settings, understanding hyperactivity through this lens allows teachers to shift from punishment-based approaches to supportive strategies. For example, instead of penalizing a pupil for calling out, teachers might use visual reminders, proximity control, or pre-correction techniques. According to DuPaul and Stoner (2014), classroom accommodations like frequent breaks, task chunking, and clearly defined expectations align well with this theory's insights, helping pupils improve impulse control and attention gradually.

1.5.2.2 Cognitive Behavioral Theory

Cognitive Behavioral Theory (CBT) is widely applied in educational and psychological settings to support children with hyperactivity, especially those diagnosed with ADHD. According to Safren , CBT operates on the principle that thoughts, behaviors, and emotions are interconnected, and by modifying these patterns,

individuals can learn to regulate their actions. In the context of hyperactivity, this theory suggests that children can be taught to recognize impulsive tendencies, anticipate consequences, and develop more adaptive responses through structured strategies and self-monitoring.

According to Brown (2021), hyperactive pupils often respond to immediate stimuli without processing the potential outcomes. CBT addresses this challenge by teaching them how to pause, reflect, and respond thoughtfully. One common technique is the use of self-instruction, where pupils are guided to talk themselves through tasks using internal dialogue such as "stop and think" or "what do I need to do next?" Over time, this strategy becomes internalized and helps regulate behavior.

In classroom practice, CBT-informed interventions are practical and flexible. According to DuPaul and Stoner (2014), these include visual goal charts, behavior checklists, and reward systems that provide immediate feedback and reinforce self-control. Teachers can also incorporate brief reflection activities where pupils assess their behavior and set goals for improvement. These tools do not rely on punitive measures but instead foster a sense of responsibility and emotional awareness.

By empowering pupils to take ownership of their behavior, Cognitive Behavioral Theory supports long-term growth in emotional regulation, academic focus, and interpersonal skills that are often underdeveloped in hyperactive learners.

1.5.2.3 Social Learning Theory

Social Learning Theory, developed by Albert Bandura, offers valuable insights into how hyperactive children acquire and model behaviors through observation and interaction. According to Fabiano et al. (2009), this theory suggests that children learn not only through direct experience but also by watching others, especially figures of authority or peers. For hyperactive learners, this means that behaviors such as self-

regulation, attentiveness, or impulsivity can be influenced significantly by the models they are exposed to in their daily environments.

According to DuPaul and Stoner (2014), pupils with ADHD often observe and imitate the behaviors of both peers and adults, sometimes without fully understanding the appropriateness of those actions. In classrooms where chaos or inconsistency is present, hyperactive pupils may mirror these conditions through disruptive behavior. Conversely, when exposed to structured routines, positive peer interactions, and calm teacher responses, they are more likely to adopt those same patterns.

Rief (2016) highlights the practical applications of Social Learning Theory in education by recommending strategies such as peer tutoring, behavior modeling, and cooperative learning groups. These allow hyperactive children to see and practice appropriate behaviors within a safe and supportive framework. Reinforcement also plays a critical role: pupils are more likely to repeat behaviors that are met with praise, attention, or rewards.

Ultimately, Social Learning Theory underscores the importance of the environment in shaping behavior. For hyperactive children, surrounding them with positive, consistent models and encouraging reinforcement can lead to meaningful behavioral improvements and stronger social integration.

1.5.3 Overcoming Communication Barriers

Hyperactive children often face significant communication challenges that interfere with both learning and social interaction. According to Dodd (2005), many children with ADHD exhibit delays in receptive and expressive language, which can hinder their ability to understand instructions, express their needs, or engage in structured conversation. These communication barriers are often subtle yet deeply impactful, leading to frustration, misinterpretation, and withdrawal or acting out.

According to Snowling and Hulme (2021), language difficulties in children with hyperactivity are frequently misunderstood as behavioral problems. For example, a pupil who doesn't follow instructions may be seen as defiant, when in fact they may have simply misunderstood the message due to processing delays. To address this, teachers must tailor their communication to the learner's level by using short, clear phrases, repeating key points, and supplementing verbal instructions with visual aids.

Rief (2016) suggests that the classroom environment should be designed to reduce linguistic overload and provide multiple modes of information. Techniques like using checklists, illustrated instructions, or step-by-step demonstrations can help pupils access and retain information more effectively. Moreover, building a consistent language routine in the classroom such as predictable transitions, cue words, and visual schedules can support pupils in anticipating and preparing for what comes next.

According to DuPaul and Stoner (2014), communication support should also involve encouraging verbal participation without pressure. Allowing hyperactive pupils time to process and respond, and acknowledging their efforts without immediate correction, can foster confidence and improve both academic and social outcomes.

1.6 Integrating Linguistic and Psychological Approaches

Effectively teaching hyperactive children requires more than isolated linguistic or psychological strategies; it demands an integrated approach that combines both perspectives into a cohesive, responsive teaching model. According to DuPaul and Stoner (2014), many hyperactive pupils struggle not only with self-regulation and attention but also with language comprehension, making it essential for teachers to address these issues together rather than separately. The intersection of these fields allows educators to create structured yet flexible environments that support both cognitive development and behavioral improvement.

According to Dodd (2005), linguistic strategies such as simplifying language, using visual supports, and reinforcing verbal input with gestures directly aid children

with language processing difficulties. However, when combined with psychological techniques like behavior reinforcement, mindfulness routines, and emotional coaching these approaches become significantly more effective. For instance, a pupil who struggles to understand multi-step instructions may benefit from both simplified language and a behavior chart that helps track task completion and reinforce focus.

Rief (2016) emphasizes that pupils with ADHD often learn best when instruction is multimodal, emotionally supportive, and individualized. By integrating linguistic modifications with psychological insight, teachers can help pupils access content while managing impulsivity and anxiety. According to Brown (2021), this integration also encourages emotional safety in the classroom, allowing pupils to take academic risks without fear of embarrassment.

When linguistic clarity is paired with emotional awareness and behavioral support, pupils with hyperactivity are better able to focus, participate, and succeed. This integration transforms classrooms into spaces of inclusion, where diverse learners can thrive academically and socially.

1.6.1 Visual Learners

Visual learners understand information best when it is presented in a visual format, such as images, charts, diagrams, or color-coded materials. According to Dodd (2005), many children with ADHD benefit from visual instruction because it allows them to process information without relying solely on verbal explanations, which can be overwhelming or difficult to follow. For hyperactive pupils, visual supports serve as anchors that maintain attention and clarify instructions.

According to DuPaul and Stoner (2014), visual learning tools are particularly effective in helping pupils remember routines, instructions, and multi-step tasks. For example, teachers might use picture schedules, labeled diagrams, or graphic organizers to guide pupils through daily classroom activities. These tools reduce reliance on memory and minimize the need for repeated verbal directions an important

consideration for pupils who may become frustrated when asked to listen and recall complex steps.

Rief (2016) emphasizes the value of using consistent visual cues throughout the learning environment. Color-coded folders, traffic-light behavior charts, and checklists help hyperactive learners track their progress and regulate their actions. These aids not only improve comprehension but also enhance pupils' ability to stay on task, reducing the likelihood of disruptive behaviors caused by confusion or boredom.

Visual strategies should be embedded in both instruction and classroom management. According to Brown (2021), pupils with ADHD often respond better to visual prompts than verbal ones, making this style a crucial part of inclusive education. When instruction "shows" rather than "tells," it invites visual learners especially those with hyperactivity to participate more confidently.

1.6.2 Auditory Learners

Auditory learners absorb information most effectively through listening and verbal interaction. According to DuPaul and Stoner (2014), pupils with this learning style benefit from spoken instructions, classroom discussions, read-alouds, and audio-based learning materials. For hyperactive learners, however, auditory learning can be a double-edged sword. While they may thrive in conversational settings, their impulsivity and distractibility can interfere with their ability to listen attentively or wait their turn to speak.

According to Rief (2016), teachers can support auditory learners with ADHD by creating structured verbal interactions that reduce distractions. This includes using consistent phrases to signal transitions, repeating instructions calmly, and incorporating rhythmic or musical elements into lessons. Songs, chants, or rhyming patterns can increase retention while engaging the learner in a way that channels their energy productively.

Interactive elements are especially beneficial. According to Brown (2021), auditory learners with hyperactivity are more likely to stay engaged when lessons involve question-and-answer sessions, partner reading, or classroom debates. These formats allow them to express themselves while reinforcing comprehension. However, to prevent overstimulation, it is important to establish clear speaking rules and provide visual supports alongside verbal information.

Incorporating audio books, voice recordings, and oral storytelling can further support these learners, offering them alternative pathways to access content. According to Dodd (2005), auditory learners often benefit when material is delivered at a moderate pace and with expressive intonation, helping them focus and visualize what they hear. Overall, auditory instruction, when structured and intentional, offers hyperactive learners both clarity and connection in the learning process.

1.6.3 Kinesthetic Learners

Kinesthetic learners process information best through movement, hands-on activities, and direct physical interaction with their environment. According to Rief (2016), many hyperactive pupils naturally gravitate toward this learning style, as it allows them to release physical energy while remaining engaged in the learning process. For children who struggle with sitting still, opportunities to move purposefully can transform restlessness into productivity.

According to DuPaul and Stoner (2014), kinesthetic learning strategies are especially effective in helping pupils with ADHD retain information and stay focused. Activities such as role-playing, science experiments, manipulatives in math, or acting out scenes in language arts tap into these learners' strengths. When movement is incorporated intentionally, it reduces off-task behaviors and improves attention spans.

Brown (2021) also highlights the emotional benefits of kinesthetic engagement. Physical activity can act as a self-regulation tool, lowering anxiety and improving mood, which in turn supports concentration and classroom participation. For instance, allowing

pupils to walk while reading flashcards or use standing desks can improve focus and reduce behavioral interruptions.

According to Dodd (2005), integrating short movement breaks, known as "brain breaks," between lessons is another practical method to help kinesthetic learners re-engage with learning content. These breaks can be simple stretching, clapping, or short physical challenges but their impact on attention and behavior is substantial.

Supporting kinesthetic learners, especially those with hyperactivity, requires flexibility and creativity. By making movement a structured part of instruction, teachers empower pupils to learn in ways that are both physically and cognitively stimulating.

1.6.4 Read/Write Learners

Read/write learners prefer to interact with text-based materials, processing information best through reading, note-taking, and written responses. While this learning style is often less associated with hyperactive pupils, it can still be effective when adapted to suit their attention and working memory limitations. According to Snowling and Hulme (2021), some hyperactive learners benefit from the structure and predictability that reading and writing tasks provide, particularly when these tasks are broken into manageable steps.

According to Dodd (2005), pupils with ADHD often struggle with language processing speed and sustained focus, making large blocks of text or long writing assignments overwhelming. To support these learners, educators must provide clear, concise instructions, use bullet points or chunked content, and allow for flexible pacing. Visual text tools such as flowcharts, graphic organizers, and checklists can also make written information more accessible and less cognitively taxing.

Rief (2016) emphasizes the importance of giving pupils opportunities to express themselves through structured writing activities, such as journaling, sentence starters, or guided essays. These formats help pupils with hyperactivity stay organized while

developing their thoughts. Additionally, DuPaul and Stoner (2014) suggest that note-taking strategies like highlighting, color coding, or summarizing after short reading bursts can help maintain engagement and reinforce understanding.

Although not always a natural fit, read/write instruction can be highly effective for hyperactive learners when adapted thoughtfully. When combined with visual prompts and breaks, this style fosters independence, academic confidence, and improved attention to detail.

1.6.5 Effective Communication Strategies

Effective communication is essential in supporting hyperactive learners, as it directly influences their understanding, behavior, and engagement in classroom activities. According to Dodd (2005), children with ADHD often struggle to process verbal language quickly and accurately, making it necessary for teachers to adapt their communication style. Simplifying instructions, maintaining eye contact, and repeating key points can make a significant difference in how pupils receive and act upon information.

According to DuPaul and Stoner (2014), using multi-modal communication combining verbal instructions with visual cues, gestures, and written reminders is especially effective. For example, a teacher might pair spoken instructions with a picture schedule or checklist, helping pupils recall tasks without repeated verbal prompts. These techniques reduce frustration and promote independence by compensating for working memory deficits often seen in ADHD.

Rief (2016) also emphasizes the importance of tone and pacing. Speaking calmly, avoiding abrupt commands, and using consistent phrasing creates a predictable environment where pupils feel safe and can focus. Nonverbal communication such as using a hand signal to request silence or a color-coded cue card system can quietly redirect behavior without embarrassing the pupil.

According to Brown (2021), communication should also be positive and encouraging. Instead of focusing on what a pupil has done wrong, teachers should reinforce what the pupil is doing right. Phrases like “I noticed you stayed in your seat” or “thank you for raising your hand” not only guide behavior but also build confidence and trust. Through intentional, respectful, and structured communication, teachers can create an environment where hyperactive learners feel heard, supported, and capable.

1.6.6 Classroom Management Techniques

Managing a classroom that includes hyperactive learners requires a proactive, structured, and empathetic approach. According to DuPaul and Stoner (2014), the most effective classroom management strategies for pupils with ADHD are those that combine clear expectations with positive reinforcement. Hyperactive pupils often benefit from external structure and predictability, which help them regulate impulsive behavior and stay focused during instruction.

One widely recommended strategy is the use of a consistent behavior reinforcement system. According to Rief (2016), systems like token economies, point charts, or behavior contracts give pupils immediate feedback on their actions and create tangible goals to work toward. These tools are particularly useful for hyperactive learners, who respond more positively to reward-based systems than to punishment or delayed consequences.

Classroom arrangement also plays a crucial role. According to Brown (2021), seating hyperactive pupils near the teacher, away from distractions like windows or high-traffic areas, can help minimize external stimulation. Providing access to tools such as fidget devices or stress balls may also help reduce the need for disruptive movement while allowing the pupil to self-regulate.

Visual schedules, clearly labeled transitions, and consistent routines provide additional structure. Dodd (2005) suggests that previewing changes in routine or upcoming activities helps reduce anxiety and behavioral outbursts in ADHD learners.

When pupils know what to expect, they are more likely to feel in control and remain engaged.

In essence, classroom management for hyperactive pupils should be viewed as a system of support rather than discipline. When designed thoughtfully, it empowers pupils to participate fully and positively in their learning environment.

1.6.7 Collaborative Learning Models

Collaborative learning offers valuable opportunities for social interaction and active engagement, making it especially beneficial for hyperactive pupils when structured correctly. According to Fabiano et al. (2009), pupils with ADHD often struggle with peer interaction due to impulsivity and difficulty following social norms. However, when placed in structured, well-facilitated group settings, these same pupils can build social skills and develop a sense of belonging.

According to DuPaul and Stoner (2014), collaborative models such as peer tutoring, cooperative learning groups, and jigsaw activities allow pupils to work toward shared goals while receiving immediate feedback and support from both peers and teachers. These approaches are particularly effective when roles are clearly defined, tasks are short and goal-oriented, and group sizes are small. This structure prevents hyperactive pupils from becoming overwhelmed or disengaged.

Rief (2016) emphasizes the importance of assigning specific responsibilities to each group member. For hyperactive learners, being given a meaningful yet manageable role such as timekeeper, recorder, or materials manager helps channel their energy into productive participation. Clear expectations and time-limited tasks help prevent off-task behavior and reduce opportunities for conflict.

Collaborative learning also supports the development of communication and emotional regulation. According to Brown (2021), through group work, hyperactive children can observe appropriate social behavior, receive peer modeling, and practice

turn-taking in real time. Teachers play a vital role in coaching these interactions, helping pupils reflect on successes and challenges.

When implemented with care, collaborative learning becomes a tool not only for academic development but also for building the social confidence and cooperative skills that hyperactive pupils often need most.

1.6.8 Customizing Teaching Materials

Customizing teaching materials is essential when addressing the diverse cognitive and behavioral needs of hyperactive learners. According to Rief (2016), hyperactive pupils often benefit from materials that are not only engaging but also designed with simplicity, clarity, and structure in mind. Traditional worksheets or dense texts may overwhelm or disengage these pupils, especially if the content is not presented in a way that aligns with their attention span and processing capabilities.

According to DuPaul and Stoner (2014), effective customized materials use visual supports, reduced text load, and interactive elements to maintain pupil interest and reduce cognitive overload. For example, breaking down assignments into smaller, manageable sections with clear instructions and visual cues can help pupils complete tasks more independently. Graphic organizers, color coding, and checklists are practical tools that support organization and task planning skills that are often underdeveloped in pupils with ADHD.

Technology can also play a helpful role in customization. According to Dodd (2005), interactive tools like audio-visual presentations, speech-to-text applications, or gamified quizzes allow hyperactive learners to engage with content in dynamic ways. These tools can be adjusted to suit the learner's pace and attention span, providing both stimulation and structure.

Customization should also extend to assessment. Offering choices in how pupils demonstrate learning such as oral presentations, visual projects, or written reflections

can help reduce anxiety and highlight individual strengths. As Brown (2021) notes, flexible materials that account for executive functioning challenges promote not only academic achievement but also self-efficacy and motivation.

1.7 Psychological Insights for Effective Teaching

Psychological insight plays a crucial role in shaping effective teaching strategies for hyperactive pupils, as it enables educators to understand the inner workings behind outward behaviors. According to Barkley (2014), ADHD is rooted in impaired executive function, which affects not only attention and impulse control but also emotional self-regulation and task persistence. Recognizing these internal struggles allows teachers to shift from reactive discipline to proactive support.

One key psychological strategy is the development of emotional awareness and self-monitoring. According to Safren , teaching pupils how to recognize their emotional states and triggers through tools like behavior charts, daily reflections, or emotion wheels can improve regulation and reduce impulsivity. These techniques help pupils pause before acting and give them a sense of control over their behavior.

Another effective approach is incorporating motivational psychology. According to Volkow et al. (2009), the ADHD brain responds differently to reward, often requiring immediate reinforcement to sustain effort. As a result, teachers should use consistent, short-term goals and reward systems to maintain pupil engagement. Token economies, point systems, and immediate verbal praise can create a structured incentive environment that supports attention and behavior.

According to Rief (2016), fostering psychological safety is also essential. When pupils feel supported and understood, they are more likely to take academic risks and accept feedback. Psychological insight thus encourages a classroom atmosphere that values progress over perfection an especially important mindset for pupils whose learning journey may be more complex.

1.7.1 Teacher Mindset and Empathy

The mindset and empathy of the teacher are foundational to the success of hyperactive learners. According to Rief (2016), educators who adopt a compassionate and flexible approach are more likely to create inclusive environments where pupils with ADHD can thrive. Empathy allows teachers to look beyond the surface behavior and consider the neurological and emotional roots of hyperactivity, fostering patience and reducing misinterpretation of behaviors such as impulsivity or inattention.

According to Brown (2021), teachers' beliefs about pupil potential significantly influence classroom outcomes. When teachers view hyperactivity as a disability that can be supported rather than a disruption to be punished, they are more likely to implement effective interventions and communicate hope to their pupils. This positive mindset helps build trust and encourages pupils to take ownership of their learning without fear of constant correction.

Barkley (2014) emphasizes the importance of shifting from a punitive mindset to one that is support-based. Teachers who anticipate behavioral challenges and respond with consistency, empathy, and problem-solving rather than punishment create a more psychologically safe classroom. This mindset shift also reduces teacher burnout, as it reframes challenges as manageable rather than insurmountable.

According to DuPaul and Stoner (2014), empathy also includes understanding how ADHD affects not just behavior, but self-esteem. Teachers who provide encouragement, notice small improvements, and communicate belief in the pupil’s abilities can dramatically affect a learner’s confidence and motivation. Ultimately, a teacher’s mindset is not just an internal attitude it becomes the emotional climate of the classroom.

1.7.2 Emotional Intelligence in Classroom Practice

Building on the importance of teacher empathy discussed in the previous section, emotional intelligence (EI) in classroom practice extends that mindset into daily interactions with hyperactive pupils. According to Brown (2021), emotional intelligence involves recognizing and managing one's own emotions, while also understanding and responding to the emotions of others. For teachers working with ADHD learners who often struggle with emotional self-regulation EI is not just beneficial, but essential.

As discussed in 1.5.2 on communication strategies, emotionally intelligent teachers are better able to de-escalate tense situations and respond to misbehavior with understanding rather than frustration. According to Rief (2016), using emotionally aware language, offering choices, and validating feelings helps hyperactive pupils feel respected and safe which are key elements in reducing oppositional behavior and improving classroom engagement.

According to DuPaul and Stoner (2014), emotional intelligence also plays a role in creating a predictable, calm classroom environment. When teachers model emotional control, pupils are more likely to mirror that behavior, a principle closely tied to Social Learning Theory (1.4.2.3). For hyperactive learners, this modeling is particularly influential in teaching patience, self-awareness, and empathy toward peers.

Furthermore, EI contributes to stronger teacher-pupil relationships. According to Safren , when pupils feel emotionally connected to their teacher, they are more likely to comply with instructions and participate willingly. Emotionally intelligent practice, therefore, acts as a bridge between understanding a puipil's psychological needs and delivering instruction that genuinely connects with them.

1.7.3 Motivation-Building and Self-Regulation

Motivation and self-regulation are two of the most persistent challenges for hyperactive learners, but they can also become areas of growth when approached through targeted strategies grounded in emotional insight and neuroscience. As explored

in 1.4.2.1 Behavioral Inhibition Theory, ADHD-related impulsivity often stems from impaired self-regulation mechanisms. According to Barkley (2014), these deficits impact a child's ability to plan, delay gratification, and manage emotions all crucial to sustaining motivation in academic settings.

According to Volkow et al. (2009), the brain's reward system in individuals with ADHD is less responsive to delayed rewards, which means that traditional motivation strategies may fall short. Instead, short-term, immediate reinforcements such as praise, tokens, or privileges are more effective in building task persistence. This insight echoes the need for emotional intelligence discussed in 1.6.2, where consistent positive reinforcement and emotional support help pupils stay engaged.

Rief (2016) emphasizes the power of goal-setting and self-monitoring tools to strengthen internal motivation. Checklists, behavior trackers, and reflective journaling give pupils a sense of progress and control essential components of self-regulation. These techniques align closely with cognitive-behavioral strategies introduced in 1.4.2.2, allowing pupils to internalize coping skills over time.

DuPaul and Stoner (2014) also note that motivation improves when pupils feel competent and recognized. Thus, reinforcing effort not just outcomes builds both resilience and intrinsic motivation. Helping hyperactive pupils set manageable goals, celebrate small victories, and reflect on progress turns motivation and self-regulation into teachable, achievable skills.

1.8 Summary of Key Psychological Strategies

Psychological insights are the foundation of effective teaching strategies for hyperactive learners, providing educators with the understanding needed to move beyond surface-level behavior and support the child as a whole. As discussed throughout Section 1.4, theories like Barkley's Behavioral Inhibition and the Cognitive-Behavioral framework emphasize that hyperactivity stems from neurodevelopmental delays in executive functioning not from intentional misbehavior (Barkley, 2014; Safren et al.,

2005). This understanding reshapes the teacher's role from disciplinarian to facilitator of self-regulation and growth.

One critical insight is the importance of emotional safety. According to Brown (2021), many hyperactive learners experience repeated failure in school, which can lead to feelings of shame, frustration, or learned helplessness. By applying emotional intelligence strategies discussed in 1.6.2, teachers can help pupils build resilience, regulate emotion, and remain open to learning. Empathetic feedback and safe spaces for reflection foster trust and increase classroom participation.

Motivation is also central to psychological support, especially given what Volkow et al. (2009) describe as altered reward sensitivity in ADHD brains. As shown in 1.6.3, short-term rewards and clear, achievable goals keep pupils engaged and reinforce progress.

According to DuPaul and Stoner (2014), teaching hyperactive pupils effectively requires anticipating challenges and providing consistent routines, visual structure, and flexible responses. In short, psychologically informed instruction turns theory into practice giving educators tools not only to manage behavior but to inspire confidence, emotional growth, and academic success in pupils who need it most.

1.9 Conclusion

This chapter emphasized on the effective instruction that requires the integration of both linguistic and psychological approaches. Teaching hyperactive children is not simply a matter of managing behavior but of understanding a deeply complex and multidimensional condition. It becomes clear that no single strategy is sufficient on its own instead, combining tailored language use with emotionally intelligent communication and structured behavioral strategies creates a supportive learning environment where hyperactive pupils can thrive. Motivation, emotional awareness, teacher empathy, and flexible materials all contribute to this holistic model. Finally, the psychological lens deepens our understanding of these children not as disruptive, but as developmentally vulnerable learners in need of patience, structure, and responsive teaching. When educators are equipped with psychological insight and emotional intelligence, they can become powerful agents of change in the lives of hyperactive pupils. The following chapters will now explore how these foundational theories are applied in real classroom contexts.

Chapter Two: Research Procedures and Findings

Chapter Two Content

2.1 Introduction

This chapter outlines the research methodology and data analysis used to explore how linguistic and psychological strategies can improve teaching hyperactive children in Algerian middle schools. The study was conducted in two Tlemcen-based public schools: El Maqari and Ben Moussa Yahia. Data was collected through pupils' questionnaire, teachers and psychologists' interviews, and classroom observation. Initially, 200 pupils aged 13–15 completed the questionnaire, without being labeled as hyperactive. From their responses, 50 pupils showing clear ADHD-related traits were selected for further observation.

Five teachers three from El Maqari and two from Ben Moussa Yahia were interviewed in informal settings to encourage openness. These educators were chosen by school managers for their classroom management skills. Additionally, five private psychologists with experience treating children with ADHD were interviewed to provide clinical insights into emotional regulation, attention, and the role of language in behavior.

The chapter also details the sampling methods and instruments used, chosen to capture diverse perspectives from pupils, teachers, and psychologists on the educational experiences of hyperactive children.

2.2 Sample Population

This study's sample was drawn from two public middle schools in Tlemcen: El Maqari (city center) and Ben Moussa Yahia (Bouhenak). These schools were chosen for their accessibility and cooperation. A total of 200 pupils (100 from each school) initially completed a questionnaire designed to identify ADHD-related traits, distributed without labeling any student to maintain an inclusive environment. Following analysis of the responses, 50 pupils aged 13 to 15 who showed clear ADHD-related behaviors were selected for the final sample. These students became the focus of both questionnaire analysis and classroom observations, ensuring the study remained targeted and ethically sensitive. The research also included interviews with five teachers three from El Maqari and two from Ben Moussa Yahia selected by school managers for their effective classroom management. These interviews were conducted in relaxed settings during break time to encourage open reflection. Additionally, five private psychologists from Tlemcen, experienced in working with children diagnosed with ADHD, were interviewed to provide clinical insights. Their input added psychological depth to the study, complementing the perspectives of both pupils and teachers.

2.3 Research Design and Procedures

This study was conducted in two public middle schools in Tlemcen, Algeria: El Maqari (city center) and Ben Moussa Yahia (Bouhenak). These schools were chosen for their accessibility and support in facilitating research activities. Initially, 200 pupils (100 from each school) completed a questionnaire designed to identify ADHD-related traits, distributed without labeling any individuals to avoid stigma. Based on the responses, 50 pupils aged 13 to 15 who exhibited clear ADHD symptoms were selected for further analysis and classroom observation.

In addition to pupil input, five teachers three from El Maqari and two from Ben Moussa Yahia were interviewed. These teachers were recommended by school administrators for their strong classroom management skills. Interviews took place during break times in the teachers' room to create a relaxed atmosphere.

The study also involved five private psychologists from Tlemcen, chosen for their experience with ADHD in both clinical and educational settings. Their insights added psychological depth to the behavioral and educational data gathered.

2.4 Instruments

To achieve its objectives, the study employed three main tools: pupils' questionnaire, semi-structured interviews, and classroom observation. The questionnaire was given to 200 pupils without mentioning ADHD, ensuring inclusivity. Based on the responses, 50 pupils aged 13–15 showing ADHD-related traits were selected for further analysis. Interviews were conducted with five experienced teachers to explore their strategies and challenges in managing hyperactive pupils, and with five psychologists who offered clinical insights into behavior, attention, and emotional regulation. Finally, classroom observations of the selected pupils provided real-time behavioral data. Together, these methods offered a well-rounded understanding of effective teaching strategies for hyperactive learners.

2.4.1 Pupils' Questionnaire

The pupils' questionnaire was the primary tool for gathering firsthand insights into the experiences, preferences, and academic challenges of hyperactive learners. It was distributed to 200 pupils 100 from El Maqari Middle School and 100 from Ben Moussa Yahia Middle School without labeling anyone as hyperactive to avoid stigma and encourage honest responses. Based on behavioral indicators like inattentiveness, impulsivity, and difficulty following instructions, 50 pupils aged 13 to 15 were selected for further analysis. The questionnaire consisted of 14 questions across five themes, addressing classroom engagement, emotional reactions, teacher behavior, and teaching method effectiveness. It combined closed- and open-ended formats to balance structured data with pupil expression. Both schools were visited multiple times to distribute and collect questionnaires, which allowed for informal observation of classroom environments and pupils' interactions. Despite logistical challenges such as time constraints and managing large groups, the researcher fostered a respectful and

comfortable setting through discreet and friendly engagement, especially during recess. Support from school staff helped ensure smooth administration. The data collected offered a valuable understanding of how hyperactive pupils perceive their educational experience and was later cross-referenced with teachers and psychologists' interviews, as well as classroom observations, to build a comprehensive analysis.

2.4.2 Teachers' Interview

The teachers' interview provided crucial insight into the challenges of teaching hyperactive pupils. Five teachers three from El Maqari and two from Ben Moussa Yahia were chosen for their strong classroom management, as recommended by school leaders. Conducted during break times in a relaxed setting, the semi-structured interviews allowed teachers to openly discuss behavioral difficulties, emotional strain, and the lack of institutional support. Many emphasized the need for specialized training, improved communication with parents, and more flexible curricula. They also highlighted that hyperactive pupils often possess high potential but struggle due to rigid teaching methods and limited psychological awareness. Field notes taken during the interviews added further depth, capturing emotional cues and reactions. These insights helped bridge the perspectives of pupils and psychologists and informed the study's final recommendations.

2.4.3 Psychologist Interview

To enrich the perspectives of pupils and teachers, the study included insights from five private psychologists in Tlemcen, selected for their clinical experience with children showing ADHD symptoms in both school and therapeutic settings. Using a semi-structured interview format, psychologists discussed key themes such as emotional regulation, attention span, impulsivity, classroom integration, and the influence of communication styles. They emphasized that ADHD is a neurodevelopmental disorder, often misunderstood in schools, and frequently accompanied by emotional challenges like anxiety and low self-esteem.

All five professionals expressed concern over the underdiagnosis of ADHD and the tendency to mislabel affected pupils as simply "undisciplined." They strongly advocated for teacher training that incorporates psychological understanding, as well as better collaboration between educators and mental health experts. Interviews were conducted ethically, with full consent in the psychologists' offices.

These contributions were crucial in validating the findings from pupils and teachers, while also introducing clinical depth and terminology. The psychologists' input confirmed the need for emotional support and adaptive teaching methods, adding professional credibility and nuance to the study's final conclusions.

2.4.4 Classroom Observation

Classroom observation served as a vital tool to validate and enrich findings from the questionnaires and interviews. Conducted unobtrusively in both El Maqari and Ben Moussa Yahia middle schools, the researcher observed 50 pupils aged 13 to 15, previously identified as showing ADHD-related traits. To avoid influencing behavior, pupils were unaware they were being observed for this reason. Observations focused on behaviors like attention span, impulsivity, peer interaction, task avoidance, and emotional responses. Patterns such as frequent movement, verbal outbursts, and difficulty concentrating mirrored pupil-reported struggles. Teachers responded in varying ways some with structured strategies, others with rigid or harsh methods that occasionally worsened pupil disengagement. These real-time observations confirmed many points raised in teachers' interview and pupils' questionnaire. Pupils' expressed needs for more interactive learning were reflected in their classroom behavior, while teachers' frustrations with classroom disruptions were visibly evident. Ultimately, observation helped bridge theory and practice, offering authentic, behavior-based evidence that reinforced the study's conclusions. It added depth and credibility, grounding the research in the lived realities of Algerian classrooms.

2.5 Data Analysis

This section presents a detailed analysis of the data collected through the various instruments employed in the study: the pupils' questionnaire, teachers' interview, psychologists' interview, and classroom observations. Each tool offered a distinct perspective on the teaching of hyperactive pupils, allowing for a triangulated understanding of both academic and behavioral dynamics. The analysis combines quantitative interpretation primarily from the questionnaire results with qualitative insights drawn from open-ended responses and in-depth interviews. This multi-layered approach was designed to identify recurring patterns, validate findings across data sources, and provide a holistic view of how hyperactivity impacts learning and how teaching strategies can be effectively adapted.

2.5.1 Pupils' Questionnaire

The analysis of the pupils' questionnaire aimed to uncover the academic and emotional challenges experienced by hyperactive pupils, as well as their preferences regarding teaching strategies. The responses were collected from a filtered group of 50 pupils, selected from an original sample of 200 based on ADHD-related behavioral indicators. The questions were grouped into thematic rubrics and analyzed using both percentages and interpretive commentary. This analysis serves as the foundation for understanding the pupils' perspectives, which are later compared with insights from teachers and psychologists.

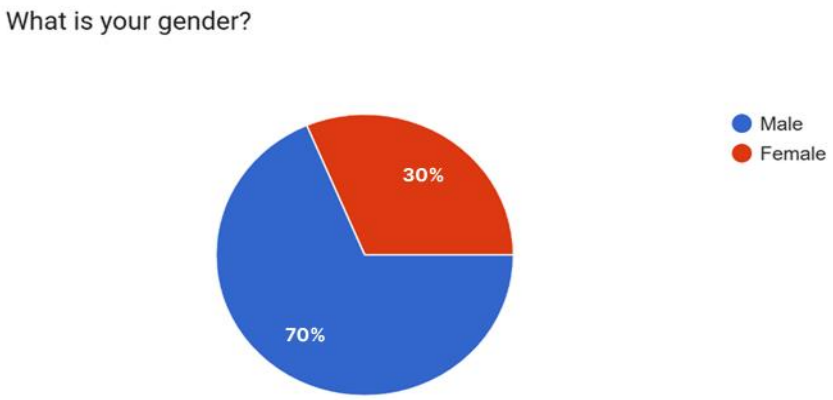
Rubric One: General Information

The first section of questions (Q1–Q2) aimed to gather basic demographic details about the participants, including their gender and age. This information helps to contextualize the study by outlining the general profile of the learners involved and supports a better understanding of the findings in relation to developmental and social factors.

Question 1: What is your gender?

This question aimed to identify the gender distribution of the participants to analyze any potential differences in learning experiences or behaviors between male and female pupils.

Figure 2.1: Gender Distribution of Participants



A total of 50 pupils responded to this item. As illustrated in Figure 2.1, the majority of respondents identified as male. Specifically, 70% of the sample were male pupils (approximately 35 participants), while 30% were female pupils (approximately 15 participants).

The sample shows a clear gender imbalance, with a majority of male participants consistent with research showing that boys are more often diagnosed with ADHD (Barkley, 2014). This may affect how behaviors like engagement and impulsivity are interpreted, though the inclusion of both genders still allows for some comparison.

Question 2: What is your age?

This question aimed to determine the age range of the participating pupils in order to better understand their developmental stage, classroom behaviors, and cognitive

readiness. Age is a key factor in evaluating attention span, social maturity, and responsiveness to instructional strategies.

A total of 50 pupils responded to this question. The sample included two primary age groups. pupils aged 14–15 years represented the majority, accounting for 58% of respondents (approximately 29 pupils). The remaining 42% of the participants (approximately 21 pupils) were aged 12–13 years.

The sample is fairly balanced but leans slightly toward older pupils, who may show different hyperactivity patterns and learning needs. As DuPaul and Stoner (2014) note, older students often face more academic and emotional challenges, affecting behavior. This age range helps explore how hyperactivity changes over time and how teaching methods can be adjusted.

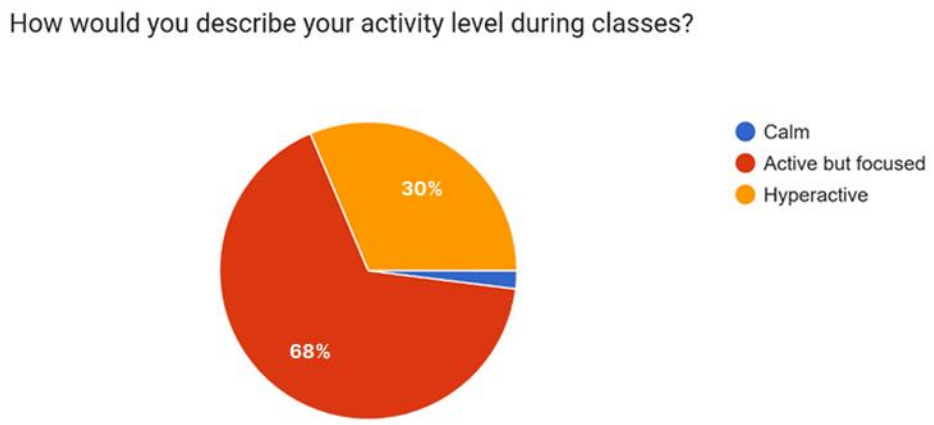
Rubric two: Classroom Activity and Participation

The second section of the questionnaire (Questions 3–4) aimed to assess the pupils' level of participation and engagement during classroom activities. These items were designed to identify how frequently learners interact with lesson content, respond to the teacher, and involve themselves in schoolwork. Since hyperactive pupils often face challenges with sustained attention and task engagement, this section offers valuable insight into how these learners perceive their own classroom behavior and involvement.

Question 3: How would you describe your activity level during classes?

This question was intended to allow pupils to self-assess their behavioral tendencies during class time. It focused on identifying whether pupils considered themselves calm, actively engaged but focused, or hyperactive. The responses provide insight into how pupils perceive their own classroom presence, which is especially important in evaluating the manifestations of hyperactivity.

Figure 2.2: Pupils' Self-Reported Activity Levels in Class

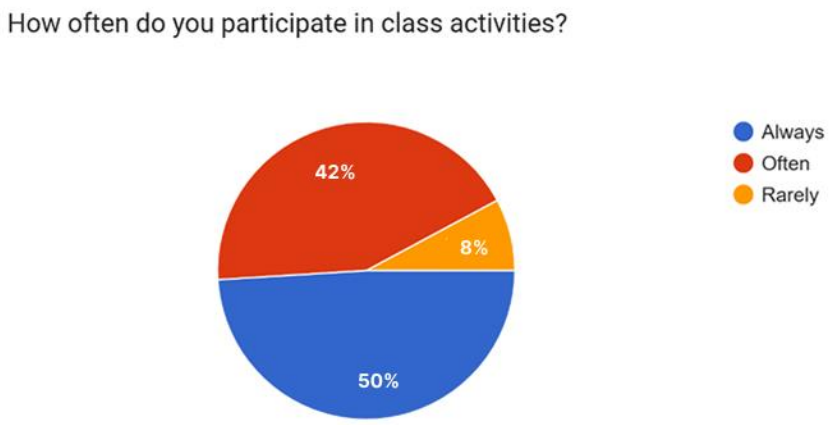


Out of 50 responses, 68% of pupils described themselves as "active but focused," 30% identified as "hyperactive," and only 2% as "calm." This suggests that while most pupils recognize their high energy, they still feel able to focus. The 30% reporting hyperactivity indicates a strong presence of ADHD-like behaviors, consistent with DuPaul and Stoner's (2014) findings on pupil self-awareness.

Question 4: How often do you participate in class activities?

This question aimed to explore the frequency of pupil participation in classroom tasks. Active participation is a strong indicator of engagement and focus, both of which are relevant when assessing hyperactivity and its impact on learning. The goal was to determine how often pupils feel they contribute during lessons.

Figure 2.3: Frequency of Pupils' Participation in Classroom Activities



Out of 50 pupils, 50% reported they "always" participate in class, 42% said "often," and only 8% "rarely." This indicates a high overall level of engagement, with 92% participating regularly. Despite hyperactive tendencies, most pupils remain involved possibly due to interactive teaching methods (Rief, 2016). The small number who rarely participate may require further investigation.

Rubric three: Learning Style Preferences

The third section of the questionnaire (Questions 5–8) focused on identifying the pupils' preferred learning styles and classroom activities. These questions aimed to explore how hyperactive pupils respond to various forms of instruction, including oral tasks, games, group work, and visual aids. Understanding these preferences can help in designing teaching strategies that match their cognitive and behavioral needs, making learning more effective and engaging.

Question 5: Do you enjoy activities that involve speaking and listening, such as storytelling or acting?

This question aimed to determine whether pupils are engaged by oral tasks, particularly those involving interactive speaking and listening. These activities are often used in language learning to improve verbal expression, comprehension, and classroom

engagement especially important for learners who display hyperactivity or low attention.

Of the 50 pupils surveyed, 84% said they enjoy activities like storytelling or acting, while 16% did not. This strong preference for oral and interactive tasks suggests that hyperactive learners respond better to dynamic, multi-sensory instruction. As Dodd (2005) notes, such activities align with the strengths of pupils with ADHD and can enhance engagement and learning.

Question 6: Do you feel more engaged when the teacher uses games or interactive activities?

This question aimed to assess whether games and interactive methods increase pupils' engagement during lessons. Since hyperactive learners often struggle with sustained focus, this question helps evaluate the effectiveness of movement-based or interactive instruction as a means of enhancing attention and participation.

Out of 50 pupils, 92% reported feeling more engaged when teachers use games or interactive activities, while only 8% did not. This highlights the effectiveness of interactive strategies in capturing attention and boosting motivation. The findings align with Rief (2016), who emphasizes the importance of varied, stimulating instruction for hyperactive learners with high energy and short attention spans.

Question 7: Do you prefer individual tasks or group work?

This question was designed to explore pupils' preferences regarding classroom task formats. Specifically, it aimed to reveal whether hyperactive learners favor working alone or collaborating with peers a key consideration when designing lessons that promote focus, motivation, and emotional regulation.

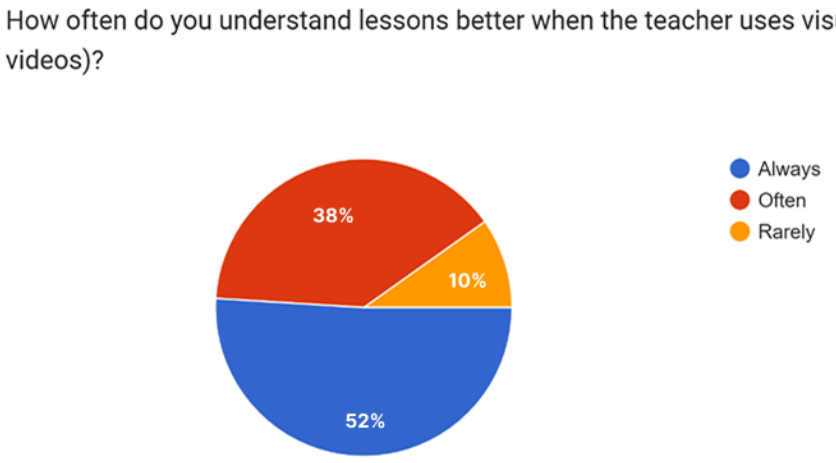
Among 50 pupils, 78% preferred group work, while 22% favored individual tasks. This suggests that most hyperactive pupils thrive in cooperative learning environments, which offer social interaction, movement, and shared responsibility

factors that support engagement and behavior (DuPaul & Stoner, 2014). Still, the 22% preferring individual work highlight the need for balance in instructional approaches.

Question 8: How often do you understand lessons better when the teacher uses visual aids (e.g., pictures, videos)?

This question was designed to evaluate the effectiveness of visual aids in improving comprehension among hyperactive pupils. Visual tools are often recommended for learners who struggle with attention and verbal processing, as they can simplify concepts and reduce cognitive overload.

Figure 2.4: Frequency of Better Understanding with Visual Aids



Of the 50 pupils, 52% said they always understand lessons better with visual aids, 38% said often, and only 10% said rarely. This means 90% find visual support helpful, highlighting its effectiveness for hyperactive learners. These findings support Dodd's (2005) view on visual scaffolding and reinforce the value of multimodal teaching strategies discussed in Chapter 1.

Rubric four: Psychological and Emotional Responses

The fourth section of the questionnaire (Questions 9–11) focused on pupils' emotional reactions and psychological experiences within the classroom. These questions were aimed at identifying how hyperactive learners feel during lessons, whether they believe

their needs are acknowledged by their teachers, and how they perceive personalized instruction. Emotional state and self-perception play a critical role in how pupils behave and perform academically, especially in the case of pupils with attention and behavioral challenges.

Question 9: How do you feel during lessons?

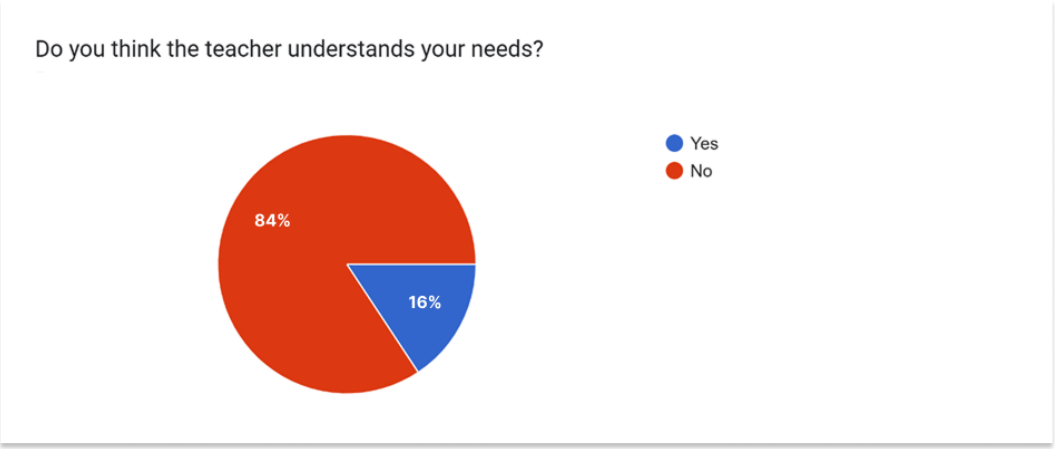
This question aimed to assess the emotional state of pupils during classroom instruction. Emotional responses such as anxiety, excitement, or confidence can significantly influence attention, participation, and overall academic performance, especially among learners with hyperactive behavior

Out of 50 pupils, 38% reported feeling confident in class, 32% excited, 20% nervous, and 10% anxious. While 70% showed positive emotions toward learning, nearly one-third expressed stress or discomfort possibly linked to focus issues or fear of judgment. This supports Brown's (2021) view that emotional regulation challenges in ADHD require supportive classroom environments.

Question 10: Do you think the teacher understands your needs?

This question was intended to assess whether pupils feel acknowledged and supported by their teachers. For hyperactive learners, teacher awareness and responsiveness to their emotional and behavioral needs are vital components of academic success and psychological well-being.

Figure 2.5: Pupils' Perception of Teacher Understanding.



Out of 50 pupils, 84% said they do not feel understood by their teacher, while only 16% said they do. This reveals a major disconnect and suggests a lack of teacher awareness or training in supporting hyperactive learners. As Rief (2016) notes, without differentiated instruction, pupils may face emotional and behavioral difficulties.

Question 11: Do you believe that personalized teaching methods can help you focus better?

This question aimed to evaluate pupils' beliefs regarding the usefulness of personalized or individualized teaching strategies. It explores whether hyperactive learners recognize the value of instruction tailored to their needs, preferences, and attention levels.

Out of 50 pupils, 66% said that tailored instruction helps them focus, while 34% disagreed. This supports the importance of differentiated teaching for hyperactive learners, as noted by DuPaul and Stoner (2014). However, the mixed responses suggest that personalized strategies must be well-designed and consistently applied to be effective for all pupils.

Rubric five: Learning Challenges and Suggestions

The fifth and final section of the questionnaire (Questions 12–14) focused on the specific difficulties pupils face during lessons and their perceptions of linguistic activities and teaching strategies. This section also invited pupils to share their personal suggestions for improving lesson clarity and engagement. These questions provide insight into how hyperactive learners experience their academic environment and offer valuable feedback for refining instructional approaches.

Question 12: What challenges do you face during lessons?

This question aimed to identify the specific academic or behavioral challenges pupils face during classroom instruction. Understanding these difficulties helps clarify the areas where hyperactive learners may require greater support, adaptation, or intervention.

Among 50 pupils, 46% said fast-paced lessons were their main challenge, 40% cited difficulty concentrating, and 14% struggled with understanding tasks. These results highlight key ADHD-related issues particularly inattention and processing speed (Barkley, 2014). They emphasize the need for slower pacing, clearer instructions, and supportive tools like visual aids in teaching.

Question 13: Do you think linguistic activities (e.g., games, acting) make lessons easier for you?

This question aimed to evaluate pupils' perceptions of language-based activities as a tool for improving comprehension and engagement. It explores whether dynamic, interactive methods such as games and acting help hyperactive learners process and retain lesson content more effectively.

Out of 50 pupils, 78% supported the use of linguistic activities in class, while 22% did not. This suggests that most hyperactive pupils benefit from verbal, interactive, and creative methods approaches that, as Rief (2016) notes, help sustain attention and reduce

boredom. The minority who disagreed may reflect different learning needs or inconsistent implementation.

Question 14: What would you suggest to make lessons more engaging and easier to understand for hyperactive children?

This open-ended question aimed to gather direct suggestions from pupils regarding how their learning experience could be improved. The goal was to identify recurring needs and preferences that teachers might not fully recognize. It also allowed pupils to express emotional and academic frustrations, making their voices central to the improvement of pedagogical methods.

Table 2.1: Thematic Categories of Pupils' Suggestions for Improved Lessons

Category	Number of Mentions (Approx.)
Use of Technology & Visuals	32
Interactive/Game-Based Methods	29
Shorter/Simplified Lessons	27
Better Teacher Behavior & Emotional Support	30
Inclusion, Motivation, and Equal Opportunities	25

Pupils' written responses revealed key themes reflecting their needs: a strong preference for technology and visual aids (e.g., videos, pictures), interactive methods like games and group work, and simplified instruction to reduce pressure. Many called for emotional support, asking teachers to be patient and avoid harsh discipline. Fair treatment, inclusion, and a positive classroom atmosphere were also emphasized as crucial for motivation and engagement.

2.5.2 Teachers' interview.

To complement the pupils' perspective, this section analyzes the insights gathered from five middle school teachers working in the Tlemcen region. These teachers three from El Maqari Middle School and two from Ben Moussa Yahia Middle School were selected based on administrative recommendations for their effectiveness in classroom control. Interviews were conducted during break time in the teachers' lounge to ensure a relaxed and open atmosphere. The semi-structured format allowed for rich, qualitative data collection, with questions addressing teachers' experiences, strategies, challenges, and suggestions for dealing with hyperactive pupils. Their feedback provides a practical understanding of how hyperactivity manifests in real classrooms and what methods teachers currently use to manage it.

Table2.2: Thematic Coding Table of Teachers' Interview Responses

Codes	Categories	Themes
Difficulty maintaining pupil attention	Behavioral classroom challenges	Theme 1: Classroom Management Difficulties
Repeated instructions, redirection	Behavioral classroom challenges	Theme 1: Classroom Management Difficulties
Visual aids, gestures, movement	Adaptation of teaching methods	Theme 2: Adapted Pedagogical Strategies
Group work, games, hands-on activities	Engagement techniques	Theme 2: Adapted Pedagogical Strategies
Short attention span, lack of self-control	ADHD behavioral patterns	Theme 1: Classroom Management Difficulties
Emphasis on repetition and patience	Teacher attitude and adaptation	Theme 3: The Role of Patience and Empathy

Awareness of ADHD but lack of training	Professional gaps	Theme 4: Lack of Specialized Training
Requests for psychologist collaboration	Need for interdisciplinary support	Theme 4: Lack of Specialized Training
Focus on individual differences	Perception of pupil diversity	Theme 3: The Role of Patience and Empathy
Stronger response to interactive methods	Evidence of learning style effectiveness	Theme 2: Adapted Pedagogical Strategies

The table summarizes the initial thematic analysis of interviews with five middle school teachers, revealing four main themes: (1) Classroom Management Difficulties, (2) Adapted Pedagogical Strategies, (3) The Role of Patience and Empathy, and (4) Lack of Specialized Training. Individual codes from teacher responses were grouped into these broader categories based on meaning. The manual coding process ensured themes that reflected teachers' genuine concerns and experiences with hyperactive pupils. These themes will be explored further with detailed analysis and participant quotes.

Theme 1: Classroom Management Difficulties.

Classroom management emerged as one of the most pressing challenges for teachers working with hyperactive pupils. All five participants reported frequent struggles in maintaining focus and structure during lessons. The difficulties cited were less about intentional misbehavior and more related to impulsivity, short attention spans, and physical restlessness. Teachers explained that these pupils often need instructions repeated several times and tend to lose focus quickly, which disrupts the flow of the lesson and demands constant redirection. One teacher noted, "After five minutes, they are either speaking, moving, or looking around." Another added, "They may understand instructions, but they forget or rush through tasks without reading properly."

Many shared that these behaviors, though not aggressive, delay lesson progress and frustrate other pupils, while increasing the teacher's workload. “They tend to stand up without permission, touch others, or even leave their desks just to move,” one teacher explained. Such patterns suggest that the issue is not a lack of discipline but a deeper difficulty in self-regulation. As Barkley (2014) and DuPaul and Stoner (2014) argue, ADHD impairs executive functioning and worsens in rigid classroom settings. The findings affirm Rief’s (2016) point that classroom management must rely on proactive strategies and personalized support rather than on traditional rule enforcement.

Theme 2: Adapted Pedagogical Strategies

In addressing the challenges posed by hyperactive pupils, all five teachers emphasized the importance of adapting their teaching methods. These adaptations included the use of visual aids, simplified instructions, interactive games, and movement-based tasks. Teachers found that when lessons were delivered through more than just verbal instruction, pupils responded with increased attention and participation. One teacher noted, “When I draw something or use colored markers, they seem more interested. They even raise their hands to ask questions.” Another shared, “Group work helps them feel involved instead of just sitting.”

Most strategies were not learned through formal training but developed through experimentation. For example, teachers described using realia, acting out grammar rules, or asking pupils to come to the board approaches that encouraged engagement and reduced disruptions. One participant explained, “If I ask them to correct each other’s work, they participate better and make fewer problems.”

These insights show that non-traditional techniques not only support attention and behavior but also help pupils process information more effectively. According to Snowling and Hulme (2021), multi-modal teaching is essential for ADHD learners with language processing difficulties. Similarly, Rief (2016) and DuPaul and Stoner (2014) support task variation and interactive methods as effective tools in managing ADHD behaviors.

Theme 3: The Role of Patience and Empathy.

All five teachers stressed that technical strategies alone are not enough when working with hyperactive pupils; emotional understanding and empathy are just as essential. Teachers shared that these pupils often struggle with low self-esteem, anxiety, and fear of judgment issues made worse by harsh or impatient responses. Instead, creating a safe emotional climate helps build trust and reduces disruptive behavior. One teacher shared, "If I get angry, they get worse. But when I speak softly and treat them with respect, they calm down faster." Another said, "Empathy is not weakness. When they feel safe, they try harder and disturb less." Small gestures like using a pupil's name, offering second chances, or simply listening were described as having a powerful impact on pupil cooperation. Participants agreed that patience is not passive; it is an active strategy that supports regulation and learning. Teachers who avoid public criticism and instead approach mistakes with understanding reported better classroom behavior overall. As Brown (2021) notes, hyperactive pupils are not just cognitively different but emotionally sensitive. Safren also emphasizes the value of mindfulness and emotional support in managing ADHD behaviors. These interviews clearly show that empathy, combined with consistency, is central to helping hyperactive pupils feel included, motivated, and capable of success in the classroom.

Theme 4: Lack of Specialized Training.

Despite their evident concern and dedication, all five teachers admitted to lacking formal training in managing ADHD and related behavioral challenges. Their current approaches rely heavily on trial and error, intuition, and shared advice from colleagues, rather than on structured pedagogical or psychological knowledge. One teacher reflected, "I have never received training about how to deal with ADHD. I just learn as I go." Another explained, "We need someone to explain how their brains work. Psychologists could help us so much." Teachers expressed a clear desire for professional development, noting that workshops, printed materials, or even occasional visits from

mental health professionals could transform their ability to support these pupils. Importantly, none showed resistance to learning; rather, they felt unsupported by the system. As one teacher stated, “If schools allowed even one training session or brought in a psychologist, many pupils would benefit.” These responses reveal a systemic gap in teacher preparation, not a lack of will. As Barkley (2014) and DuPaul and Stoner (2014) point out, without targeted guidance, even committed teachers may unknowingly apply ineffective methods. Including psychologists in school environments, as supported by Fabiano et al. (2009), would bridge this gap and create a more inclusive, confident, and well-informed teaching force.

2.5.3 Psychologists’ Interview

To complement the insights collected from pupils and teachers, this section analyzes the interviews conducted with five private psychologists from Tlemcen region, all of whom have extensive experience working with children diagnosed with ADHD or displaying hyperactivity-related behaviors. The psychologists offered critical professional insights into the neurological, emotional, and behavioral challenges associated with hyperactivity, as well as specific therapeutic and pedagogical strategies they recommend for school settings. Their responses covered multiple areas, including diagnosis, behavioral interventions, classroom collaboration, and communication support. These interviews played a vital role in validating patterns observed in the other data sources and provided a clinical framework to help interpret the daily classroom challenges faced by teachers and pupils alike.

Table 2.3: Thematic Coding Table of Psychologists’ Interview Responses

Codes	Categories	Themes
ADHD is often misdiagnosed or unrecognized	Diagnosis challenges	Theme 1: Underdiagnosis and Misinterpretation

Pupils display impulsivity, low frustration tolerance	Emotional and behavioral traits	Theme 2: Emotional Dysregulation in ADHD Pupils
Poor communication between schools and psychologists	Institutional barriers	Theme 3: Lack of School–Psychologist Collaboration
Teachers lack training or awareness	Educational gaps	Theme 4: The Need for Teacher Support and Training
Use of behavior modification techniques	Treatment approaches	Theme 5: Strategies for Classroom Adaptation
Importance of consistent routines and positive reinforcement	Behavior management recommendations	Theme 5: Strategies for Classroom Adaptation
ADHD pupils need emotional validation	Emotional support strategies	Theme 2: Emotional Dysregulation in ADHD Pupils
Teachers should understand ADHD as a neurodevelopmental issue	Awareness and understanding	Theme 1: Underdiagnosis and Misinterpretation

This table summarizes the results of thematic coding from interviews with five psychologists in Tlemcen. The analysis involved extracting key ideas from each response, grouping them into related categories, and identifying broader themes. The aim was to understand how psychologists interpret ADHD behaviors in school-aged children and assess the relationship between schools and mental health services. The analysis revealed five main themes: underdiagnosis and misinterpretation of ADHD, emotional dysregulation among pupils, lack of collaboration between schools and psychologists, the need for teacher support and training, and practical strategies for classroom adaptation. These themes, explored in detail in the following sections, reflect

recurring concerns such as overlooked diagnoses, difficulties in emotional management, and the absence of systemic cooperation. Each theme is supported by expert insights and relevant literature from the thesis.

Theme 1: Underdiagnosis and Misinterpretation

One of the main concerns shared by all five psychologists was the frequent underdiagnosis and misinterpretation of ADHD in Algerian schools. Children showing signs of inattention, restlessness, or impulsivity are often labeled as disobedient or poorly raised rather than being recognized as having a neurodevelopmental condition. Psychologist 1 noted, "Teachers see them as disobedient, but their behavior is often involuntary." This misunderstanding leads to punitive measures instead of early intervention, and by the time many children reach a psychologist, they are emotionally affected or academically at risk.

Psychologists emphasized that schools rarely refer pupils for evaluation or communicate with mental health professionals. As Psychologist 3 explained, "A pupil may spend years being punished for something that is neurological in origin." Without basic awareness of ADHD symptoms, teachers may unintentionally reinforce negative patterns, worsening the child's situation. The findings indicate an urgent need for early recognition, better school-based identification protocols, and training in ADHD symptomatology.

These insights are supported by Barkley (2014), who warns of the long-term harm caused by undiagnosed ADHD. Volkow et al. (2009) explain the neurological basis of such behaviors, often mistaken for misconduct. DuPaul and Stoner (2014) stress that mislabeling prevents children from accessing the support they need exactly, as it can lead to misunderstandings of their behaviors, inappropriate educational placement, and missed opportunities for effective treatment

Theme 2: Emotional Dysregulation in ADHD Pupils

Psychologists consistently highlighted emotional dysregulation as a central issue for pupils with ADHD, describing it not as a side effect but as a defining feature of the condition. These pupils often experience intense emotional responses such as anxiety, frustration, or impulsive outbursts that can quickly escalate, particularly in rigid or unsupportive classroom settings. Psychologist 2 explained, "They don't choose to react that way. Their nervous system is overloaded." Emotional episodes are frequently misunderstood as defiance, when in fact they stem from internal distress or cognitive overload. Psychologist 5 noted, "When a pupil shouts or cries in class, it is often a call for help, not a challenge to authority."

The findings show that emotional volatility often arises from the pupil's struggle to focus or succeed, which can lead to shame, anger, or withdrawal. Harsh discipline tends to worsen the situation, while empathy and calm intervention help pupils regain control. Without emotional support, even strong teaching strategies may fail. Brown (2021) and Safren emphasize the importance of teaching emotional regulation through supportive interaction. Rief (2016) similarly argues that emotional awareness should take precedence over punishment. These insights affirm that emotional safety is essential for academic success in ADHD pupils, and that misbehavior often masks deeper unmet emotional needs.

Theme 3: Lack of School–Psychologist Collaboration

All five psychologists raised serious concerns about the lack of collaboration between schools and mental health professionals. Despite the increasing number of pupils showing signs of hyperactivity or emotional struggles, schools often operate without structured psychological support. Psychologist 3 explained, "Teachers are on the front lines, but they are not trained psychologists. We should be working together." Too often, educators handle ADHD-related behaviors without expert guidance, reaching

out only when a pupil's condition has worsened. Psychologist 1 noted, "If there were scheduled meetings between schools and psychologists, many pupils would be helped early." The absence of interdisciplinary teamwork results in missed opportunities for early intervention and support.

This disconnects impact both pupils and teachers. Teachers may feel overwhelmed and unsupported, while pupils suffer from unaddressed emotional and behavioral needs. Regular consultations, workshops, and coordinated planning were proposed as realistic solutions to improve outcomes. As Fabiano et al. (2009) suggest, collaborative behavior management leads to better support for ADHD pupils. DuPaul and Stoner (2014) also emphasize the importance of sharing clinical and classroom expertise. The findings strongly support the need for a partnership model where psychologists and educators communicate regularly, ensuring that ADHD is managed through proactive, rather than reactive strategies.

Theme 4: The Need for Teacher Support and Training

All five psychologists agreed that one of the most urgent needs in Algerian schools is targeted teacher training on ADHD and hyperactivity management. While teachers are often compassionate and willing to help, they lack the necessary psychological and pedagogical tools to support hyperactive pupils effectively. Psychologists expressed concern that many educators face ADHD-related behaviors with no formal knowledge of the condition, leading to inconsistent or even harmful interventions. One psychologist explained, "Even the most caring teacher will struggle without the right tools. Training is not a luxury it's a necessity." Another added, "Many teachers still believe ADHD is just bad parenting or stubbornness." Without proper training, teachers may misinterpret hyperactive behaviors as laziness or defiance, resulting in pupil frustration and classroom tension. Psychologists emphasized that training should include both theoretical understanding and practical classroom techniques, such as reinforcement strategies, communication tools, and emotional regulation support. This lack of preparation often leads to teacher burnout, further impacting the learning environment. As DuPaul and Stoner (2014) and Barkley (2014)

argue, professional development is critical for ADHD management. Fabiano et al. (2009) also found that even short training sessions improve outcomes. The psychologists' perspectives underscore the need for systemic support, reinforcing that well-trained teachers are essential for creating inclusive classrooms where all pupils can thrive.

Theme 5: Strategies for Classroom Adaptation

All five psychologists agreed that effectively managing hyperactive pupils requires more than discipline or empathy it calls for practical, flexible strategies tailored to the unique needs of ADHD learners. Psychologist 4 noted, "Children with hyperactivity need a predictable environment. Surprises create chaos. Routine builds trust." The recommended techniques include maintaining consistent routines, using positive reinforcement, simplifying tasks with visual aids, allowing movement breaks, and adapting instruction to individual learning preferences. These strategies help reduce anxiety, support focus, and build confidence in pupils who often feel isolated in rigid classroom settings. Psychologist 2 stressed, "Let them move! Use that energy instead of trying to shut it down," while Psychologist 5 explained that no single method works for every pupil teacher must observe and adjust.

The findings show that with proper training, these techniques can greatly improve classroom behavior and participation. Rather than eliminating hyperactive energy, the goal is to redirect it constructively. As Rief (2016) and DuPaul and Stoner (2014) explain, structured, multimodal instruction paired with behavioral reinforcement creates a more inclusive and responsive classroom. Volkow et al. (2009) further support this by linking ADHD behavior to neurobiological factors that require adaptation, not punishment. These insights confirm that flexible, pupil-centered strategies are central to effective teaching for hyperactive children.

2.5.4 Classroom Observation

The classroom observations focusing on a selected group of 50 pupils previously identified through the questionnaire as showing symptoms of hyperactivity.

Checklist-Based Observations: Behavioral Trends

The checklist revealed several high-frequency behaviors that consistently characterized hyperactive pupils across both schools. Pupils were commonly observed talking loudly during class, frequently interrupting the teacher, moving around, asking repetitive questions, and struggling to remain seated or quiet. They often acted based on the teacher's tone becoming more animated with energetic teachers, or more restrained with calm, directive figures.

Moreover, many pupils were noted playing with objects, touching peers or materials unnecessarily, and making off-topic comments. These behaviors indicate a continuous need for stimulation and suggest difficulty with self-monitoring and impulse control, which aligns with Barkley's (2014) explanation of executive dysfunction in ADHD pupils.

Rating-Scale–Style Reflections: Domain-Based Observations

The observation report was also structured around six thematic questions that mirror core teaching and learning strategies. Here is a summary of findings based on these prompts:

- *Response to Linguistic Strategies*:
  Pupils reacted positively and energetically when teachers used simplified instructions or storytelling. They showed increased attention and enthusiasm, with some even developing closer rapport with the teacher during these moments

confirming Snowling and Hulme's (2021) view that language adaptation boosts comprehension in hyperactive learners.

- *Classroom Structure and Communication:*
  Teachers who used mixed methods (structured and relaxed dialogue), allowed flexibility in pacing, and created a non-threatening environment were more successful in managing hyperactive behaviors. This aligns with DuPaul and Stoner's (2014) recommendation for flexible instruction and clear guidance.

- *Peer Interactions and Group Dynamics:*
  Pupils were more focused and socially expressive in group activities compared to individual work. Peer collaboration reduced signs of isolation and allowed pupils to channel their energy constructively, mirroring feedback from the pupil questionnaire and reinforcing the value of collaborative learning models (Rief, 2016).

- *Positive Reinforcement Strategies:*
  Pupils responded best to immediate, tangible rewards such as verbal praise, stickers, and point systems. Group-based reinforcement also improved social bonding and reduced competitiveness. These strategies reflect core behavioral principles discussed in Fabiano et al. (2009).

- *Use of Psychological Techniques:*
  Although still emerging in classroom practice, mindfulness strategies (like breathing breaks) and behavioral routines (e.g., visual schedules) were found to reduce anxiety and promote calm focus. Pupils who were guided through these methods exhibited lower impulsivity and better self-regulation over time.

Interpretation:

The classroom observations validated much of the data collected through the questionnaires and interviews. They confirmed that hyperactive pupils are not uniformly disruptive but rather sensitive, interactive, and highly responsive to the emotional tone and instructional style of the classroom. Teachers who integrated structure, empathy, movement, and visual supports created the most effective learning environments. These findings illustrate the critical value of observational methods in grounding theoretical knowledge in lived classroom experience.

2.6 Interpretation and Discussion of the Main Results

The purpose of this research was to explore how linguistic and psychological strategies can be integrated to improve the teaching of hyperactive pupils in Algerian middle schools, particularly in Tlemcen region. The study relied on a mixed-method approach involving pupils' questionnaires, teachers and psychologists' interviews, and classroom observations. By triangulating these tools, the research identified several recurring themes that form the foundation for practical interpretation and theoretical reflection. This section discusses the main findings in relation to the literature reviewed in Chapter One and provides a critical interpretation of how these insights advance our understanding of ADHD in the educational context.

One of the most significant findings across all data sources was the pervasive impact of hyperactivity on classroom behavior and academic performance. As shown in the questionnaire analysis, over 80% of pupils reported struggling with focus and feeling more engaged when lessons involved games, group work, or visual aids. Teachers confirmed this in interviews, describing frequent interruptions, difficulties with attention retention, and impulsive behavior that required constant redirection. Psychologists added that these behaviors are not simply disruptive, but symptomatic of underlying emotional and neurological dysregulation. This convergence of data highlights the complexity of teaching hyperactive pupils not only as an educational challenge but as a multidimensional issue involving cognitive, emotional, and social elements.

Furthermore, the data revealed a profound disconnect between pupils' needs and existing classroom strategies. Although some teachers attempted to adapt instruction through simplified language, visual reinforcement, and movement-based activities, these efforts were inconsistent and largely based on personal experimentation rather than structured training. Teachers themselves admitted lacking professional preparation for managing ADHD, and the psychologists confirmed that most schools in the region lack institutional collaboration with mental health professionals. This result strongly reinforces the arguments made by DuPaul and Stoner (2014), who claim that effective teaching of ADHD pupils depends not only on classroom tactics but on broader systemic reform, including professional development and interdisciplinary partnerships.

The responses from pupils, especially in open-ended questionnaire items, revealed an emotional side to the academic struggle. Many expressed feeling misunderstood, punished unfairly, or bored by traditional lessons. They called for more flexible teaching, fewer lectures, and more practical engagement. This perspective resonates with Brown's (2021) findings on the emotional vulnerability of hyperactive learners. When classroom environments are rigid or overly disciplinary, pupils not only disengage but also develop low self-esteem, anxiety, or resistance to learning. Classroom observations confirmed this: when the emotional tone was supportive, and when lessons were interactive or differentiated, pupils displayed improved focus and reduced disruptive behavior.

A second major theme in the interpretation of results is the importance of linguistic adaptation in making learning more accessible. As Dodd (2005) and Snowling and Hulme (2021) note, many ADHD pupils struggle with language processing whether in following instructions, comprehending texts, or expressing themselves clearly. Questionnaire data showed that a majority of pupils understood lessons better when teachers used visuals, repetition, or storytelling. Teachers' interviews supported this, with participants noting that pupils responded more positively to concrete examples and simplified phrasing. From a linguistic perspective, this validates the need to treat

language not as a neutral medium but as an adaptive tool that must be shaped around the cognitive needs of learners.

In parallel, classroom management was highlighted as a persistent concern. Teachers reported exhaustion from the constant need to monitor and redirect hyperactive pupils, particularly in large classes. The absence of classroom aides or structured support made individualized attention nearly impossible. While many teachers did use token systems or behavioral contracts, these were applied inconsistently and often lacked follow-up. This reinforces Rief's (2016) view that classroom management must be proactive, not reactive, and supported by institutional planning. The psychologists' interviews further clarified that what appears to be misbehavior is often a form of emotional dysregulation, and therefore cannot be corrected with punishment alone. Instead, techniques such as positive reinforcement, structured routines, and self-regulation support all of which were observed in more effective classrooms are essential.

Importantly, the research uncovered that pupils with hyperactivity are not inherently resistant to learning; rather, they learn differently, and when their needs are addressed through active engagement, emotional support, and differentiated instruction, they thrive. This finding directly supports the central hypothesis of this thesis: that teaching hyperactive pupils effectively requires the integration of linguistic scaffolding and psychological understanding. It is not enough to use games or visuals without also creating emotional safety, nor is it sufficient to apply behavioral interventions without adapting instructional language.

Another point worth noting is the limited use of interdisciplinary collaboration in the school settings studied. Although all psychologists interviewed expressed willingness to assist schools, teachers reported having no contact with mental health professionals and relying solely on intuition. This lack of cooperation results in missed opportunities for early diagnosis, emotional intervention, and pedagogical alignment. Literature such as Fabiano et al. (2009) and Volkow et al. (2009) emphasizes the value of integrated models that combine educational and psychological expertise to provide

comprehensive support for children with ADHD, something that is still absent in the Tlemcen middle school context.

In summary, the main findings from this study demonstrate that successful education of hyperactive pupils cannot be achieved through isolated efforts. What is needed is a holistic framework that involves adapted language, emotional regulation strategies, structured teaching methods, and collaborative support systems. The voices of pupils, teachers, and psychologists all point to the same reality: hyperactivity is not simply a classroom nuisance but a complex condition requiring nuanced, compassionate, and informed responses. This interpretation lays the groundwork for the final chapter, where targeted recommendations will be proposed based on both the empirical findings and theoretical perspectives.

2.7 Recommendations

Based on the findings of this research, it is clear that supporting hyperactive pupils in Algerian middle schools requires both pedagogical innovation and institutional reform.

First, teachers should be offered targeted training programs focused on ADHD awareness, emotional regulation techniques, and the integration of differentiated instruction. Many educators in the study expressed a lack of preparation in managing hyperactivity, which often led to misunderstandings and inconsistent interventions. Therefore, structured professional development programs and regular workshops should be introduced to build teacher confidence and competence in inclusive teaching practices.

Secondly, interdisciplinary collaboration between schools and mental health professionals must become a standard practice. Psychologists interviewed in this study emphasized that their insights can greatly enhance classroom management and pupil outcomes, yet they are rarely consulted. Schools should establish partnerships with local clinics or counseling centers to support early diagnosis and ongoing guidance. In

addition, lesson content must be adapted to meet the diverse learning needs of hyperactive pupils.

Pupils in the study strongly favored visual aids, interactive activities, simplified instructions, and shorter assignments. These preferences should guide lesson planning, especially in language subjects. Emotional support strategies are equally essential; teachers must avoid punitive responses and instead build positive relationships grounded in empathy, fairness, and encouragement.

Lastly, parents should be involved through awareness sessions and behavioral guidance, ensuring that efforts at home and school are aligned. Together, these recommendations point toward a holistic, sustainable approach to inclusive education one that recognizes hyperactivity not as a disruption but as a difference to be accommodated with care and competence.

2.8 Conclusion

This chapter has presented the research procedures and discussed the findings that emerged from a triangulated study involving questionnaires, interviews, and classroom observations. The results have shown that hyperactive pupils often face difficulties with focus, self-regulation, and classroom integration, all of which negatively affect their academic performance and social interaction. The study further revealed that traditional teaching methods are often insufficient to meet the needs of these learners. Teachers expressed a lack of formal training and reported using improvised strategies that, while sometimes effective, lacked consistency and structure. Psychologists, on the other hand, emphasized the importance of early diagnosis, emotional support, and classroom adaptation strategies that respect each pupil's neurocognitive profile. Classroom observations validated these perspectives by showing that pupils respond more positively to interactive, flexible, and emotionally supportive environments.

General Conclusion

This thesis set out to explore appropriate teaching methods for hyperactive pupils by integrating insights from both linguistics and psychology. Rooted in the Algerian middle school context, the study focused specifically on how hyperactivity most often associated with Attention-Deficit/Hyperactivity Disorder (ADHD) affects pupils' learning, communication, and classroom behavior. Recognizing that traditional instructional strategies often fall short in addressing the complex needs of these learners, the research aimed to identify more effective and inclusive approaches rooted in interdisciplinary understanding.

Chapter One offered a detailed theoretical and conceptual framework, outlining the nature of hyperactivity, its cognitive and behavioral implications, and its interaction with both linguistic competence and educational structures. It examined how psychological theories, such as behavioral and cognitive-behavioral models, alongside linguistic strategies like simplified language and visual aids, could form a complementary approach to teaching hyperactive pupils. Drawing on a strong body of academic literature, the chapter established that language, behavior, and cognition are deeply interconnected in the learning process, particularly for pupils who struggle with self-regulation.

Chapter Two presented the practical side of the research through questionnaires, interviews, and classroom observations conducted in two Tlemcen middle schools. The data confirmed that hyperactive pupils often feel misunderstood and overwhelmed in traditional classrooms. Teachers revealed a lack of training and institutional support, while psychologists emphasized the importance of emotional validation, individualized instruction, and early diagnosis. The findings also showed that pupils responded positively to lessons involving games, group work, and technology underscoring the importance of dynamic, pupil-centered teaching.

Ultimately, this research argues that successful education of hyperactive children cannot be achieved through isolated techniques or rigid discipline. It requires a holistic

framework that integrates psychological understanding with flexible linguistic and pedagogical strategies. Emotional safety, teacher empathy, visual and interactive instruction, and interdisciplinary collaboration must all be part of the educational response. By recognizing hyperactivity not as a classroom disruption but as a call for inclusion, the study advocates for systemic change in both teacher training and curriculum design. It is hoped that this work will serve not only as a reference for educators and researchers but also as a foundation for further studies aimed at improving the educational experiences of hyperactive learners in Algeria and beyond.

Chapter Three: BMC

REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE
Ministère de l'Enseignement Supérieur et de la Recherche Scientifique

Université Abou Bekr Belkaid Tlemcen

Business Model Canvas

BMC

N° de projet : FLLE-044

Faculté/Institut : Faculty of Letters and Languages

Département : English

Nom du projet : Bright Futures Academy : A School Designed for ADHD Learners (Empowering Focus/ Creativity and Growth)

Encadrant 1 : Mr. MEGHAGHI Slimane

Encadrant 2 : Prof. BENSAFA Abdelkader

Co-encadrant 1 :

Co-encadrant 2 :

Etudiants : - BELABBAS Hanifa -

- BAHBAH Maliha
-

Année universitaire : 2024/2025

1- Proposition de valeur (Value Proposition)القيمة المقترحة

a. What problems do we solve for our customers?

We address the educational and emotional challenges faced by children with ADHD by offering a structured language-learning environment tailored to their cognitive and behavioral needs. Traditional classrooms often fail to accommodate their impulsivity and attention difficulties, which leads to underperformance and low self-esteem. Our solution fills this gap by combining language instruction with behavior modification support. We provide a space where children feel understood rather than punished. This reduces behavioral incidents and improves learning outcomes. Parents benefit from a specialized service that supports both academic and emotional development. Unlike general language centers, we adapt instruction to meet the learner's pace, energy level, and emotional state. Our center helps prevent academic failure and school dropouts, offering long-term benefits to families. The problem we solve is not just educational—but social and emotional—as these children are often marginalized in standard settings.

b. What needs of our customers do our products or services satisfy?

Our services meet a variety of urgent needs among families with hyperactive children. First, they offer children a learning space adapted to their behavioral and cognitive challenges. Parents often struggle to find schools or centers that understand ADHD and can work constructively with it. We meet their need for personalized instruction that uses visual tools, structured routines, and movement to maintain focus. Emotional safety is also a critical need—children with ADHD require support, not punishment, and parents need professionals who understand their concerns. Additionally, our services respond to the need for clear progress tracking, consistent teacher-parent communication, and behavioral improvement over time. By integrating psychologists and behavior modification techniques into education, we meet the demand for a holistic solution—not just tutoring. We provide academic progress, behavioral support, and peace of mind, all under one roof. These needs are rarely addressed together in traditional settings.

c. How is our offering different from that of our competitors?

Our offer stands out because it directly targets a neglected group: hyperactive children who struggle in mainstream education. While traditional schools and tutoring centers focus only on academic content, Hyperfocus Institute integrates psychological and behavioral strategies into every lesson. Our instructors are trained to manage impulsivity, attention issues, and emotional outbursts in ways that support rather than punish the child. We design lessons to be short, interactive, and visually rich—something rarely seen in standard programs. We also collaborate closely with psychologists, allowing us to tailor instruction according to each pupil's neurocognitive profile. Parents are involved through awareness sessions and behavior management guidance, reinforcing our holistic approach. Competitors typically offer generic instruction; we offer therapeutic education. This multidimensional service model—blending teaching, therapy, and family involvement—is what makes our institute truly different and uniquely equipped to help ADHD learners thrive.

d. What is our unique value proposition?

Our unique value proposition lies in combining language education with psychological care tailored specifically for children with ADHD. Unlike general learning centers, we do not

simply teach; we support the child's full development—academic, emotional, and behavioral. Lessons are adapted to each pupil's pace and needs, using methods such as visual aids, movement, and gamified learning. We create a safe, non-judgmental environment where children feel accepted and capable. What truly sets us apart is our dual focus: our educational team collaborates with psychologists to deliver a personalized and science-informed program. We also involve parents through behavioral workshops and follow-up sessions. This combination—academic content delivered through a therapeutic framework—allows us to respond to the challenges these pupils face, not just in school, but in life. We are not just a school; we are a bridge between learning and well-being.

2- Segments de clients (Customer Segment) انواع العملاء :

a. Who are our main customers?

Our primary clients are parents of children aged 6 to 15 who show signs of hyperactivity or have been formally diagnosed with ADHD. These parents are often overwhelmed by the limitations of the public school system, which typically lacks the tools or training to accommodate their child's behavioral and cognitive challenges. Many have already tried various forms of tutoring or behavioral therapy, but without a combined educational and psychological approach. They are looking for a safe, understanding environment where their children can learn, grow, and feel accepted. These clients are proactive, motivated, and often seeking long-term solutions. Some may be referred by psychologists, others come through word-of-mouth or social media. What unites them is a shared goal: to find a learning space where their child is not punished for being different but is supported to succeed both academically and emotionally.

b. What are the different customer segments we are targeting?

We target three main customer segments. The first and most prominent group includes parents of children formally diagnosed with ADHD, who actively seek specialized support beyond what schools offer. The second group consists of families who suspect their child may have hyperactivity but lack a formal diagnosis; they are searching for understanding and early intervention. The third segment includes professionals—such as psychologists, pediatricians, and even school staff—who need reliable, specialized partners to refer hyperactive pupils for adapted learning. Each segment has its own expectations and entry points into our services. Diagnosed families require structured educational and therapeutic programs. Undiagnosed families want assessments and guidance. Professionals need collaboration and communication. By designing flexible service packages and messaging, we address all three effectively, ensuring each group receives value aligned with their specific situation, urgency, and knowledge level.

c. What are the specific needs of each customer segment?

Each client segment has unique needs. Diagnosed families require consistent, specialized instruction aligned with their child's treatment and psychological profile. They need emotional support, progress tracking, and reassurance that their child is progressing in a safe environment. Undiagnosed families seek clarity, understanding, and a starting point—they need both educational support and help identifying whether their child has ADHD. This group often feels overwhelmed and misinformed, so they value open communication and early behavioral intervention. Professionals, such as psychologists or school staff, need reliable partners to refer children who cannot adapt to traditional instruction. They require transparency, collaboration, and alignment between therapeutic

goals and academic methods. All three segments share a core desire: they want the child to succeed, feel understood, and avoid being marginalized. Hyperfocus Institute meets these needs with personalized plans, multi-professional coordination, and empathy at every level.

d. How can we categorize our customers into distinct groups?

For diagnosed families, we offer a school that speaks the same language as their therapists—blending behavior support with language learning to reinforce both academic and emotional development. For undiagnosed families, we provide an entry point: observation, support, and guidance that can lead to professional help without judgment or delay. These parents often feel lost, and our institute offers structure, understanding, and trust. For professionals, such as psychologists and educators, we serve as a reliable extension of their efforts—ensuring children receive therapeutic-consistent support in an academic setting. Unlike general schools or tutoring centers, we customize every element of instruction: pacing, delivery, tone, and content. Our strength is not just in teaching languages but in doing so through the lens of empathy, science, and collaboration. Each segment benefits from a service designed to respond specifically to their challenges, expectations, and emotional needs.

3- Relation avec les clients (Consumer Relationships) علاقة مع العملاء :

a. What type of relationship does each customer segment expect from us?

Each client segment expects a relationship built on trust, empathy, and ongoing communication. Parents of hyperactive children want to feel heard and supported, not judged. They expect regular updates about their child's academic and behavioral progress, along with practical advice they can apply at home. These parents value personalized contact, whether through meetings, phone calls, or digital messages. Undiagnosed families often need reassurance and patient guidance as they discover and understand their child's condition. Professionals—such as psychologists or teachers—expect a transparent and collaborative partnership where information is shared consistently to support the child's overall development. All client groups look for a warm, responsive, and professional relationship that extends beyond transactional service. They want to feel involved in the process. Hyperfocus Institute meets this need by treating every family and partner as part of a shared mission to help each child succeed.

b. How do we currently maintain relationships with our customers?

We maintain strong client relationships through a combination of personalized communication, regular follow-up, and trust-based interaction. Parents receive frequent updates on their child's behavior and academic progress via WhatsApp, phone calls, or in-person meetings. We schedule periodic parent-teacher conferences and provide individual reports to help families stay informed and involved. Additionally, we organize free awareness sessions and behavioral workshops to support families at home, reinforcing our role as partners, not just providers. For new or hesitant families, we offer trial sessions and diagnostic discussions, which help build comfort and trust. Professional partners, such as psychologists, receive regular feedback and opportunities to collaborate on pupil development. We aim to be consistently present, accessible, and responsive, so families

and professionals feel connected to the institute. This continuous engagement creates loyalty, satisfaction, and a sense of community within our client base.

c. How can we improve or personalize our interactions with our customers?

We can enhance and personalize client interactions by adopting individualized communication plans based on each family's preferences and needs. For example, some parents may prefer weekly updates via WhatsApp, while others may need face-to-face meetings or written reports. Offering customizable feedback formats, such as visual charts for behavior or voice notes for busy parents, increases accessibility. We could also create parent profiles that store preferences, learning goals, and past concerns—helping staff tailor their approach. Implementing digital tools, like a parent portal or app, would allow families to track progress, book meetings, and receive resources in real-time. For professional partners, we can offer co-branded reports and joint meetings. By actively involving parents in planning and decision-making, we foster deeper engagement. Personalizing relationships ensures each client feels valued, understood, and directly involved in their child's educational journey.

4-Canaux de distribution (Channels) قنوات التوزيع :

a. Through which channels do our customers want to be reached?

Our clients prefer to be reached through simple, direct, and familiar communication channels. Most parents favor platforms they already use daily, such as WhatsApp, phone calls, and Facebook, for receiving updates, scheduling, or asking questions. These channels are convenient, fast, and accessible, even for those with limited digital literacy. Parents also appreciate face-to-face meetings for deeper conversations about progress or concerns, especially at key moments like enrollment or report delivery. For awareness and discovery, many families respond well to social media advertising, short videos, and testimonials from other parents. Professionals such as psychologists prefer email, formal reports, or scheduled consultations. Overall, clients value a mix of digital and personal contact that feels human and responsive. By being present where they are—online and in their communities—we meet them on their terms, making trust-building and information sharing more effective.

b. Which channels are most effective for reaching each customer segment?

For parents of hyperactive children, the most effective channels are social media platforms like Facebook and Instagram, where targeted ads, parent testimonials, and awareness posts capture their attention. These platforms are ideal for reaching both diagnosed and undiagnosed families. WhatsApp is also highly effective for ongoing engagement and direct communication after first contact. For the segment of professionals—psychologists, speech therapists, and educators—referral partnerships, email exchanges, and formal presentations work best, as they prefer structured, documented communication. In-person outreach during community events or school visits helps attract hesitant or offline families. Each segment responds differently: parents want accessible, emotional content; professionals need clarity and collaboration. By matching our message to the right channel—emotional for families, technical for professionals—we ensure each client receives the information in a format and space that resonates best with them.

c. How can we integrate different channels to improve the customer experience?

We can improve the client experience by creating a seamless communication flow between online and offline channels. For example, a parent might first discover us through a Facebook ad, then message us on WhatsApp, attend a trial session, and later receive progress reports via email or printed summaries. By ensuring that all channels are synchronized, families feel continuously guided and never lost between steps. We can also implement a simple CRM system to record preferences and track interactions, so every staff member knows each client's history and preferred contact method. Physical brochures can include QR codes linking to our website or social media, while event attendees can be added to our WhatsApp broadcast list. For professionals, we ensure consistency by providing both digital and printed materials. A multi-channel system that feels personal, coherent, and responsive makes families feel respected and well-supported.

5-Partenaires clés (Key Partnerships) : الشراكة الرئيسية

a. Who are our key partners?

Our key partners include a financial institution (NESDA), psychologists and ADHD specialists who provide clinical insights and refer families in need of educational support. These partnerships are essential for aligning our teaching strategies with each child's psychological profile. We also collaborate with community centers, sports clubs, and recreational programs to organize physical and social activities that complement classroom learning. Local schools are also valuable partners, especially when they seek external help for pupils who struggle in traditional classrooms. In addition, graphic designers, digital marketers, and educational content creators support us in developing child-friendly materials and spreading our message. These partners contribute expertise we cannot fully cover in-house. Together, they enhance our credibility, extend our reach, and allow us to focus on our core mission: providing tailored language education to hyperactive children in a structured and inclusive setting.

b. What partnerships help us reduce costs, access new resources, or improve our value proposition?

Partnerships with psychologists and mental health clinics help us improve our value proposition by offering professional behavioral insight without hiring full-time specialists, which reduces operational costs. Collaborations with institutions like NESDA provide financial support to supply tools, training materials, and even resources . Working with community centers and sports clubs gives us affordable or free venues for physical activities, reducing the cost of organizing outdoor programs. Local suppliers for classroom materials or cleaning services can offer discounts through long-term contracts. Additionally, teaming up with freelance designers and marketers helps us manage branding and outreach without maintaining a large internal team. These strategic partnerships not only lower our expenses but also enrich our program offerings—bringing in expertise, resources, and

flexibility that would otherwise require heavy investment, all while allowing us to focus more on pupil outcomes and parent satisfaction.

c. How can we align our interests with those of our partners?

We can align our interests with our partners by establishing mutually beneficial goals centered around the success and well-being of hyperactive children. For example, psychologists benefit when their clients receive academic support that complements therapy, so we offer regular progress reports and invite them to co-design behavior plans. Community centers gain value by hosting inclusive educational programs, so we ensure joint branding and public visibility during events. With suppliers and service providers, we create long-term contracts with shared incentives for consistency and quality. For institutions like NESDA, we align by ensuring mutual goals, transparency and long-term value creation. Clear communication, shared values, and regular feedback loops ensure that all parties feel involved. By positioning our partners as contributors—not just providers—we build lasting, ethical, and results-driven relationships.

6-Activités clés (Key Activities) :الأنشطة الرئيسية

a. What are the main actions we need to take to deliver our value proposition?

To deliver our value proposition effectively, we must perform several essential actions. First, we must design and deliver educational programs adapted to hyperactive children, using methods that integrate movement, visuals, and simplified language content. Each lesson should align with the cognitive and emotional needs of ADHD learners. Second, we must implement behavioral reinforcement strategies, developed in consultation with psychologists, to support classroom conduct and emotional regulation. Third, we organize parent workshops and awareness sessions, ensuring families are involved and informed. We also run extracurricular activities—like sports or games—that channel pupils' energy positively. Internally, our team must maintain strong coordination and documentation systems to monitor progress and adapt approaches when necessary. Lastly, we must ensure ongoing communication with both families and professional partners, reinforcing our role as a structured, supportive, and collaborative educational space for children with ADHD.

b. What are the essential operations for our business?

Our core operations focus on maintaining a smooth, structured, and specialized learning environment for hyperactive pupils. Daily activities include planning and delivering tailored language lessons, using methods that combine movement, visuals, and behavior-friendly techniques. Simultaneously, we oversee classroom behavior monitoring, documenting progress and adjusting strategies when needed. Another key operation is parent coordination, which involves organizing meetings, sending updates, and providing support materials. We also manage the logistics of extracurricular events, such as physical games or social activities, which are essential to our therapeutic approach. Administrative tasks—such as scheduling, budgeting, and staff coordination—are crucial for daily functionality. Additionally, we maintain partnerships with psychologists and community organizations,

which requires consistent communication and alignment. Together, these operations ensure that our educational model runs efficiently, remains focused on the child's development, and continues to meet both pedagogical and emotional needs.

c. What activities create the most value for our customers?

The activities that create the most value for our clients are those that directly impact the child's academic success and emotional well-being. First, our adapted language lessons, which use visuals, movement, and short, structured formats, help children stay engaged and absorb content at their own pace. These sessions reduce frustration and increase motivation. Second, our behavioral support strategies, integrated into daily teaching and designed with psychologists, help children regulate emotions and feel safe in the classroom. Third, our regular parent communication—through reports, meetings, or messages—builds trust and reassures families that progress is being made. Fourth, our interactive workshops and recreational activities create a space where children can thrive socially and release excess energy constructively. These elements combined not only meet educational goals but also support emotional stability, family satisfaction, and lasting improvement in behavior and confidence.

7-Ressources clés (Key resources) :الموارد الرئيسية

a. What are our essential tangible, intangible and human assets?

Our essential assets fall into three categories: human, material, and intangible resources. On the human side, our most vital asset is a team of trained teachers specialized in ADHD-friendly pedagogy. We also rely on psychologists and behavior specialists who support classroom strategies and parent communication. In terms of material assets, we need a well-equipped facility that includes safe classrooms, visual teaching materials, behavior monitoring tools, and access to recreational spaces for physical activities. We also require administrative staff, including receptionists, cleaners, and security personnel to maintain smooth operations. Our intangible assets include our pedagogical method, which combines linguistic and psychological strategies; our brand reputation as a specialized institute; and our network of partners, including mental health professionals and community organizations. Together, these resources enable us to deliver a high-impact, inclusive learning experience that supports both academic and behavioral growth.

b. What tools, technologies, or partnerships do we need to succeed?

To succeed, we rely on a combination of specialized tools, digital technologies, and strategic partnerships. Educationally, we need visual aids, interactive learning software, and behavior tracking tools to adapt lessons for hyperactive pupils. Tools like whiteboards, timers, fidget objects, and video projectors help keep pupils focused and engaged. Technologically, a simple CRM or database system is essential for tracking pupil progress, parent communication, and scheduling. On the partnership side, we depend on psychologists and ADHD specialists to align educational strategies with therapeutic guidance. Collaborations with community centers provide space and support for physical and social activities. We also benefit from partnerships with graphic designers, local suppliers, and marketing experts to ensure branding, materials,

and outreach remain effective. These elements, combined, form the operational and strategic backbone of Hyperfocus Institute, ensuring quality, visibility, and long-term impact.

c. What are the main competitive advantages of our resources?

Our key competitive advantages lie in the specialized and integrated nature of our service. Unlike traditional language centers, we combine educational instruction with psychological support, targeting children with ADHD through personalized, behavior-friendly methods. Our staff is trained in both pedagogy and emotional regulation, allowing us to address academic and behavioral challenges simultaneously. We also collaborate directly with psychologists, ensuring each pupil's learning path is aligned with their mental health needs. Our small group sizes, interactive lessons, and emphasis on movement and visuals further set us apart. Parents choose us not only for academic improvement but because we offer empathy, structure, and consistent follow-up. Additionally, our flexibility in communication, bilingual teaching, and inclusion of extracurricular activities create a unique, supportive ecosystem. This multi-layered approach to education for hyperactive pupils is rare, making us a pioneer in our region.

8-Charges et coûts (Coste sructure) :التكاليف

a. What are the fixed and variable costs associated with our business model?

Our fixed and variable costs reflect the needs of a specialized, service-based educational model. Fixed costs include rent for the institute premises, which is estimated at 20 million centimes per month, along with monthly salaries for staff, such as 3 million centimes for each support worker (receptionist, cleaner, or guard). We also account for utilities, insurance, and security services. On the variable side, our main expenses depend on the number of enrolled pupils. These include teachers' compensation, which is calculated as 40% of the income generated per child, learning materials, and activity supplies. Occasional costs such as infrastructure adjustments (e.g., the 100 million centimes for facility modifications) and equipment purchases (estimated at 150 million centimes) are also planned. Together, these costs ensure we deliver quality services while adjusting to pupil volume and evolving educational needs.

b. What are the most significant costs for our business?

The most significant costs for our business fall into three main areas: human resources, infrastructure, and educational equipment. First, teacher compensation represents the largest ongoing expense, calculated at 40% of the income generated per enrolled child. Because we rely on specialized educators trained in ADHD-friendly methods, salaries must reflect their expertise and commitment. Second, the monthly rent for our facility—set at 20 million

centimes—is a major fixed cost, essential for maintaining a safe and adapted learning environment. Third, we face high initial investments in infrastructure modifications and teaching materials, including 100 million centimes for adapting the premises and 150 million for supplies. These costs ensure our space supports both learning and behavior management. While fixed, these investments are crucial to maintaining quality and safety. They directly impact the effectiveness, appeal, and credibility of our educational model.

c. How can we reduce costs or improve the efficiency of our operations?

To reduce costs and improve efficiency, we can adopt several strategies. First, by optimizing scheduling, we can group pupils with similar profiles in the same sessions, maximizing teacher productivity without sacrificing quality. Second, we could use digital tools—like free educational platforms, virtual behavior tracking, or automated reporting systems—to reduce time and paper-based processes. Partnering with local suppliers for bulk purchasing of materials and negotiating long-term rent agreements can also lower operational costs. Additionally, recruiting multi-skilled staff who can handle both teaching and basic administrative duties improves flexibility and reduces overhead. Hosting shared workshops or events with partner organizations can help us split promotional and logistics costs. Finally, applying for local funding to support low-income families can expand our client base without straining our budget, making the model more sustainable over time.

9-Revenus (Revenue) :مصادر الدخل

a. **What products or services are our customers willing to pay for?**

Our clients are willing to pay for specialized educational services that address both the academic and behavioral needs of their hyperactive children. The core service is a language-learning program adapted specifically for pupils with ADHD, offered at 800DA per session. Parents value this service because it provides visible improvement in their child's attention, behavior, and school performance. In addition to regular sessions, families are also open to paying for personalized progress tracking, parent coaching workshops, and exam review classes, especially if they see results. They understand that our methods go beyond traditional tutoring, combining psychological strategies and emotional support. For many, the investment is not just academic—it's emotional and developmental. The trust built through our structured approach, small group sizes, and tailored content makes clients more willing to pay consistently and even recommend us to others.

b. What are the different ways we can generate income?

We can generate revenue through several interconnected streams. The primary source is session-based payments, where each child pays 800 DA per class. With multiple weekly sessions, this ensures steady, predictable income. We also offer monthly packages at a discounted rate to encourage long-term engagement. Additionally, parent workshops,

focused on ADHD management and home strategies, can be offered as paid sessions. During school holidays or exam periods, we can run intensive review courses for an extra fee. There's also potential in offering one-on-one sessions for children needing personalized attention. In the future, we may develop digital resources like e-books or video courses for parents, creating a passive income stream. Lastly, forming partnerships with NGOs or government programs may open access to grants or sponsorships, allowing us to serve low-income families while maintaining financial sustainability.

c. What is our pricing model?

Our pricing model is simple, flexible, and adapted to family needs. The base rate is 800DA per session per child, which allows parents to pay as they go. For families with multiple children or those attending several sessions per week, we offer discounted packages, making the service more accessible over time. For example, enrolling two or more siblings qualifies for a reduced rate per child. We also provide free revision sessions during exam periods as part of a loyalty strategy. Pricing is value-based, reflecting the specialized nature of our services—small group sizes, trained staff, psychological support, and personalized learning. Additionally, we plan to offer optional paid workshops and one-on-one coaching for families seeking deeper intervention. Our model balances affordability with sustainability, ensuring that families receive expert care while the institute maintains financial stability and quality delivery.

Business Model Canevas : BMC

Key Partnerships

NESDA

Psychologists

Institutions Specializing in the Treatment of Hyperactivity

Key Activities

Teaching hyperactive children with a personalized approach using a behavior modification program

Awareness sessions with parents

Organizing sports and recreational activities

Key resources

Human Resources:
Professors/Workers (Receptionist, Guard, Cleaners)

Material Resources:
Headquarters/Equipment/

Supplies

Value Proposition

The "Hyperfocus Institute" is a school dedicated to teaching languages to hyperactive children.

Costumiers Relationship

Direct pull relationship

Use discounts (for two or more children from the same family)

Incentives (free review courses during exam periods)

distribution Channels

Social media advertising

Psychologists

Events and workshops in schools and community centers

Customer Segment

Parents who have one or more hyperactive children

Coste structure

Human Resources:

Teachers (40% of income per child)

Workers (3 million centimes a month per worker)

Material Resources:

Headquarters (20 million centimes per month)

Adjustments (100 million)

Supplies (150 million centimes)

Revenus (Revenue)

800DZD per lesson per student

Bibliography

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: Author.
- Barkley, R. A. (1997). *ADHD and the Nature of Self-Control*. New York: Guilford Press.
- Barkley, R. A. (2014). *Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment* (4th ed.). New York: Guilford Press.
- Boissiere, P. (2018). *Thriving with Adult ADHD: Skills to Strengthen Executive Functioning*. Emeryville, CA: Rockridge Press.
- Brown, T. E. (2021). *Smart but Stuck: Emotions in Teens and Adults with ADHD*. San Francisco: Jossey-Bass.
- Dodd, B. (2005). *Speech and Language Processing in Children with ADHD*. London: Whurr Publishers.
- DuPaul, G. J., & Stoner, G. (2014). *ADHD in the Schools: Assessment and Intervention Strategies* (3rd ed.). New York: Guilford Press.
- Fabiano, G. A., Pelham, W. E., Coles, E. K., Gnagy, E. M., Chronis-Tuscano,
- A., & O'Connor, B. C. (2009). A meta-analysis of behavioral treatments for attention-deficit/hyperactivity disorder. *Clinical Psychology Review, 29*(2), 129–140. https://doi.org/10.1016/j.cpr.2008.11.001
- Faraone, S. V., & Mick, E. (2010). Molecular genetics of attention deficit hyperactivity disorder. *Psychiatric Clinics of North America, 33*(1), 159–180. https://doi.org/10.1016/j.psc.2009.12.004
- Jensen, P. S., & Cooper, J. R. (2002). Children's mental health and the school system: A partnership imperative. *Academic Psychiatry, 26*(1), 81–87. https://doi.org/10.1176/appi.ap.26.1.81
- Kaufman, S. B., & Engle, R. W. (2019). The role of working memory in problem solving. *Current Directions in Psychological Science, 28*(3), 205–210. https://doi.org/10.1177/0963721419829719
- Loe, I. M., & Feldman, H. M. (2007). Academic and educational outcomes of children with ADHD. *Journal of Pediatric Psychology, 32*(6), 643–654. https://doi.org/10.1093/jpepsy/jsl054
- McCann, D., Barrett, A., Cooper, A., Crumpler, D., Dalen, L., Grimshaw, K., ... & Stevenson, J. (2007). Food additives and hyperactive behavior in 3-year-old and 8/9-year-old children in the community: A randomized, double-blinded, placebo-controlled trial. *The Lancet, 370*(9598), 1560–1567. https://doi.org/10.1016/S0140-6736(07)61306-3
- Miranda, A., & Presentación, M. J. (2000). ADHD and its impact on executive functioning: Implications for academic achievement. *Learning Disabilities Research & Practice, 15*(2), 90–98. https://doi.org/10.1207/SLDRP1502_3

- Rief, S. F. (2016). *How to Reach and Teach Children with ADD/ADHD: Practical Techniques, Strategies, and Interventions* (3rd ed.). San Francisco: Jossey-Bass.
- Shaw, P., Eckstrand, K., Sharp, W., Blumenthal, J., Lerch, J. P., Greenstein, D., ... & Rapoport, J. L. (2007). Attention-deficit/hyperactivity disorder is characterized by a delay in cortical maturation. *Proceedings of the National Academy of Sciences, 104*(49), 19649–19654. https://doi.org/10.1073/pnas.0707741104
- Snowling, M., & Hulme, C. (2021). *Developmental Disorders of Language Learning and Cognition*. Hoboken, NJ: Wiley-Blackwell.
- Thomas, R., Sanders, S., Doust, J., Beller, E., & Glasziou, P. (2015). Prevalence of attention-deficit/hyperactivity disorder: A systematic review and meta-analysis. *Pediatrics, 135*(4), e994–e1001. https://doi.org/10.1542/peds.2014-3482
- Volkow, N. D., Wang, G. J., Kollins, S. H., Wigal, T. L., Newcorn, J. H., Telang, F., ... & Swanson, J. M. (2009). Evaluating dopamine reward pathway in ADHD: Clinical implications. *JAMA, 302*(10), 1084–1091. https://doi.org/10.1001/jama.2009.1308
- Zentall, S. S. (2006). ADHD and education: Foundations, characteristics, methods, and collaboration. *Journal of Educational Research, 99*(6), 354–365. https://doi.org/10.3200/JOER.99.6.345-356

Appendix A: Pupils' Questionnaire

This questionnaire aims to collect data on suitable methods for teaching hyperactive children using linguistics and psychology.

Please answer the following questions.

1. What is your gender?

□ Male □ Female

2. What is your age?

□ 12–13 years □ 14–15 years

3. How would you describe your activity level during classes?

□ Calm □ Active but focused □ Hyperactive

4. How often do you participate in class activities?

□ Always □ Often □ Rarely

5. Do you enjoy activities that involve speaking and listening, such as storytelling or acting?

□ Yes □ No

6. Do you feel more engaged when the teacher uses games or interactive activities?

□ Yes □ No

7. Do you prefer individual tasks or group work?

□ Individual tasks □ Group work

8. How often do you understand lessons better when the teacher uses visual aids (e.g., pictures, videos)?

□ Always □ Often □ Rarely

9. How do you feel during lessons? *(Check all that apply)*

□ Excited □ Nervous □ Anxious □ Confident

10. Do you think the teacher understands your needs?

□ Yes □ No

11. Do you believe that personalized teaching methods can help you focus better?

□ Yes □ No

12. What challenges do you face during lessons? *(Check all that apply)*

□ Difficulty concentrating □ Difficulty understanding tasks □ Fast-paced lessons □ Other: _____

13. Do you think linguistic activities (e.g., games, acting) make lessons easier for you?

□ Yes □ No

14. What would you suggest to make lessons more engaging and easier to understand for hyperactive children?

Your answer:

_____

Appendix B: Teachers' Interview.

Interview Questions for Middle School Teachers

Thank you for your participation .The purpose of this study is to explore effective teaching strategies and psychological insights related to hyperactivity in children. Feel free to customize any sections as needed!

1. Background Information

- How long have you been teaching, and what age groups do you work with?
- Have you had experience teaching hyperactive pupils? If so, can you describe it?

2. Understanding Hyperactivity

- How would you define hyperactivity in the context of learning and behavior?
- What challenges do you typically face when teaching hyperactive pupils?

3. Teaching Methods

- Which teaching methods or strategies have you found most effective for hyperactive pupils?
- How do you incorporate linguistic techniques, such as storytelling or role-playing, into your teaching?
- Can you describe an instance where a psychological approach (e.g., behavior modification) helped you manage a hyperactive pupil?

4. Classroom Management

- What tools or techniques do you use to maintain focus and engagement among hyperactive pupils?
- How do you adapt teaching materials for these pupils?

5. Collaborative Insights

- Do you collaborate with psychologists or specialists when dealing with hyperactive pupils? If yes, how?

6. Recommendations

- What advice would you give to teachers working with hyperactive pupils?
- What additional support or training do you believe is necessary for teachers?

Appendix C: Psychologists' Interview.

Interview Questions for Doctors / Psychologists

Thank you for agreeing to participate in this interview. The purpose of this study is to explore effective teaching strategies and psychological insights related to hyperactivity in children. Feel free to customize any sections as needed!

1. Professional Background

- Can you describe your experience working with hyperactive children and their families?
- What age groups do you primarily work with?

2. Understanding the Condition

- What are the primary factors contributing to hyperactivity in children?
- How does hyperactivity affect a child's learning and social behavior?

3. Interventions and Strategies

- What psychological theories or approaches do you recommend for teaching hyperactive pupils?
- How can teachers use psychological insights to address communication barriers and behavior challenges in the classroom?

4. Linguistic and Cognitive Development

- How does hyperactivity impact language processing and communication skills?
- Are there any specific linguistic techniques that you recommend for teaching hyperactive pupils?

5. Collaboration with Educators

- How do you work with teachers to create a supportive learning environment for hyperactive pupils?
- Can you provide an example of a successful collaboration with a school or teacher?

6. Advice and Recommendations

- What general advice would you give to teachers working with hyperactive pupils?
- How can parents and schools better support these pupils?

Appendix D: Classroom Observation Checklist

This classroom observation checklist was used by the researcher during the in-class monitoring of 50 hyperactive pupils selected from two middle schools: El Maqari Middle School (Centre Ville) and Ben Moussa Yahia Middle School (Bouhenak). The observations aimed to record behavioral tendencies, classroom engagement, peer interaction, and teacher responses. The checklist was completed during live sessions without pupil interference and followed a structured format for consistency. It helped validate the data gathered from the questionnaires and interviews and offered real-time insight into classroom dynamics involving hyperactive pupils.

Part 1: Behavioral Observation

Observed Behavior	Noted (✓/✗)	Frequency Notes or Comments
Excessive talking during teacher instruction		
Frequent movement without permission		
Impulsive actions (shouting out, touching peers)		
Failure to stay seated		
Playing with objects or distractions		
Poor attention during oral explanations		

Repeating questions or seeking constant feedback		
Responding emotionally to teacher's tone		
Signs of frustration or nervous behavior		
Active engagement during visual or physical tasks		

Part 2: Linguistic and Pedagogical Responses

Observation Focus	Notes or Examples
Teacher's use of simplified language or repetition	
Integration of visual aids or interactive tools	
Use of group activities vs. individual assignments	
Frequency of positive reinforcement (praise, tokens, etc.)	
Use of classroom routines and transitions	
Emotional responsiveness of teacher	

Part 3: Reflective Prompts Used During Observation

These guiding questions were used by the observer to interpret the classroom dynamics:

1. How did hyperactive pupils respond to linguistic strategies (e.g., simplified instructions)?
2. Were the teacher's communication and tone effective in regulating behavior?
3. Did pupils engage more in individual work or collaborative tasks?
4. Were emotional or behavioral challenges addressed empathetically?
5. What forms of reinforcement or regulation were most effective?
6. How did classroom structure (seating, pacing, lesson design) affect pupil behavior?

ملخص: تكشف هذه الدراسة كيف يُمكن للاستراتيجيات اللغوية والنفسية تحسين نتائج التدريس لدى التلاميذ ذوي النشاط المفرط في مدارس التعليم المتوسط بالجزائر. وتبحث في أسباب وآثار فرط النشاط، مع التركيز على السلوكيات المرتبطة باضطراب فرط الحركة ونقص الانتباه وتأثيرها على التعلم والتفاعل الصفي. ومن خلال الاستبيانات والمقابلات والملاحظات الصفية، تُحدد الدراسة التحديات التعليمية الرئيسية والتدخلات الفعالة. حيث تُظهر النتائج أن دمج الروتينات المنظمة والوسائل البصرية والتدريس الداعم عاطفيًا يُعزز المشاركة الأكاديمية والاجتماعية. وكما تُسهم هذه النتائج في وضع استراتيجيات عملية وشاملة للمعلمين وصانعي السياسات في إدارة المتعلمين ذوي النشاط المفرط.

Résumé : Cette étude explore comment les stratégies linguistiques et psychologiques peuvent améliorer les résultats scolaires des élèves hyperactifs dans les CEM algériens. Elle examine les causes et les effets de l'hyperactivité, en se concentrant sur les comportements liés au TDAH et leur impact sur l'apprentissage et les interactions en classe. Au moyen de questionnaires, d'entretiens et d'observations en classe, l'étude identifie les principaux défis pédagogiques et les interventions efficaces. Les résultats montrent que l'intégration de routines structurées, d'aides visuelles et d'un enseignement de soutien émotionnel favorise un meilleur engagement scolaire et social. Ces résultats apportent des stratégies pratiques et inclusives aux enseignants et aux décideurs politiques pour la gestion des élèves hyperactifs.

Summary: This study explores how linguistic and psychological strategies can improve teaching outcomes for hyperactive pupils in Algerian middle schools. It investigates causes and effects of hyperactivity, focusing on ADHD-related behavior and its impact on learning and classroom interaction. Through questionnaires, interviews, and classroom observations, the study identifies key educational challenges and effective interventions. Results show that integrating structured routines, visual aids, and emotionally supportive teaching fosters better academic and social engagement. The findings contribute practical, inclusive strategies for educators and policymakers in managing hyperactive learners.