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Integrating Psychology, Cognitive, and Behavioral Science in the Concept of Education and Student Success in the Educational System

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Abstract:- Psychology, the study of human thought, emotion, and behavior, plays a crucial role in education. It includes subfields such as developmental, social, clinical, and cognitive psychology, each offering unique insights into the human psyche. This science primarily focuses on mental processes such as perception, attention, memory, language, and problem-solving, providing an understanding of the mechanisms that drive human cognition and behavior. Psychology is intricately linked to education, as it helps optimize learning environments and instructional strategies. By delving into psychological principles that underpin effective teaching and learning, education can improve itself, addressing topics such as motivation, assessment, and instructional design. These sciences also explore how culture, environment, and social norms influence individual and collective behavior. Interdisciplinary associations between psychology and education facilitate the translation of research findings into practical applications, informing educational practices, policy decisions, and interventions to promote psychological well-being and cognitive development. These interventions can benefit the educational system, teachers, managers, and students, improving educational outcomes. The study, conducted using a qualitative method between April and August 2024, was based on sixty-five references and evaluated the role of cognition as a mediator between psychological patterns and individual behaviors. It primarily discussed the impact on the educational system and the success that educational institutions and their administrators should ideally consider.

Keywords: Behavior, Cognitive, Education, Educational System, Psychology.

1. Introduction

The relationship between behavioral science, psychological patterns, and cognitive processes is vital for understanding human behavior. Behavioral science focuses on observable behaviors and the external stimuli that shape them, drawing from theories such as Pavlov's classical conditioning, Skinner's operant conditioning, and Bandura's social learning theory. Psychological patterns include how individuals think, feel, and act, providing insight into personality, emotions, and mental health. Cognition is the crucial link between these two areas, offering insight into the cognitive processes that underlie and influence both observable behaviors and psychological patterns. Understanding how cognition interprets behavioral cues, shapes outcomes, and links emotions to behaviors is critical to comprehending human functioning. This understanding informs therapeutic approaches like Cognitive Behavioral Therapy (CBT) and enhances educational strategies and behavior modification programs. Cognitive procedures such as perception, memory, and decision-making play a vital role in interpreting experiences, forming beliefs, and guiding actions. Understanding cognition's role in mediating the relationship between behavioral science and psychological patterns is crucial for developing effective interventions and promoting mental well-being (Pavlov, 1927; Beck, 1976; Seligman, 1991).

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The interaction between psychological and behavioral factors, guided by cognitive processes, is crucial in investigating educational success. The educational system is not just a means of transmitting knowledge but also a complex environment where students' mental states, behaviors, and cognitive functions come together to influence learning outcomes. Psychological aspects such as motivation, self-efficacy, and emotional well-being significantly impact students' engagement and performance. Behavioral factors, including study habits, classroom participation, and interactions with peers and teachers, also shape the learning experience. Cognition is the critical mediator in this dynamic, translating psychological states and behaviors into academic achievements. Cognitive processes like attention, memory, and problem-solving are essential for effective learning and retention. Understanding how psychological and behavioral factors influence these mental functions can inform strategies to enhance educational practices and student support systems. Recent research underscores the significance of a holistic approach in education that integrates psychological support and behavioral interventions to foster cognitive development and educational success. For example, promoting a growth mindset—a cognitive framework that emphasizes the malleability of intelligence—has been shown to improve academic resilience and achievement. Additionally, incorporating socio-emotional learning (SEL) programs that address students' emotional and social needs can enhance cognitive engagement and learning outcomes. Therefore, a comprehensive understanding of the educational process requires examining the interconnections between psychological well-being, behavioral patterns, and mental functions (Wentzel, 1991; Zimmerman, 2000; Dweck, 2006; Sweller et al., 2011; Baddeley, 2012; CASEL,2020; Duckworth, 2016; Yeager & Dweck, 2020).

Educational System and Educational Success

A historical perspective is invaluable in considering the evolution and future of educational assessment. From the earliest recorded methods to those used today, the field has committed to improving the validity and reliability of measuring candidate achievement. Early assessments depended on paper-and-pencil formats and expert judgment, encouraging a systematic but constrained view of student abilities. As mass education grew, especially in the 20th century, there was an increasing requirement for group-administered standardized testing, and statistical techniques—such as classical test theory and later item response theory—were developed that made large-scale testing possible. These advances made scoring more objective and expanded the application of tests to a wide range of educational contexts. However, with the introduction of computer-based testing during the digital era, and after advanced adaptive methods of scoring were applied, the measurements turned once again towards using intricate, more personalized means of assessing student performance to mirror actual processes and situations that occur within the world (Tooth et al., 2022; Rautiola, 2009).

Nevertheless, such great advances have been made, and introducing such technological and statistical analysis into educational psychology and class management is still a monumental task. In many ways, most traditional models of psychometric assessments have failed to consider most of the psychological, cultural, and contextual factors that are closely linked with learning and performance. This means that most of the assessment technologies most widely employed in the modern world lack a connection to real-life classroom practice, which is where most learning occurs and from which most teachers require information. This bridge outlines the future of educational assessment, underlining the importance of introducing psychological theories to statistical and technological approaches. This integration focuses on the achievement of better-quality assessments that go beyond the mere assessment of learning and inform teaching and learning endeavors. Such an approach could eventually lead to the development of interventions that offer a better view of students' performance and the quality of education, thus creating opportunities for improvements that would be sensitive to the learner and teacher needs (Tooth et al., 2022; Rautiola, 2009).

School leadership is crucial in improving students' academic and non-academic outcomes. Leadership styles such as transformational and instructional leadership have different impacts on students' performance. Understanding these effects could help develop better learning approaches and enhance student performance. The educational sector needs effective management that acknowledges and utilizes various leadership styles to meet societal demands and ensure the development and organization of the educational system (Arbabi & Mehdinezhad, 2015). Management is critical in fostering trust and visibility in schools, ensuring effective

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curriculum implementation, and promoting teacher collaboration (Armstrong, 2003). Management strategies in educational organizations have evolved from personal experience to a scientific knowledge base in the 1980s and mid-1990s, addressing weaknesses and incorporating sophisticated methods (Avolio & Bass, 2004). Leadership plays a significant role in fostering school improvement over time, as it directs members toward achieving organizational goals (Aydina et al., 2016). The association between leadership styles and school interpretation is complicated, with firm principals planning strategically and achieving set targets (Bell, 2010). School leadership involves influencing others to achieve goals, with evaluation focusing on student achievement, curriculum alignment, data-driven instruction, and parent involvement (Gregoire, 2009). Principals must uniquely blend education, character, and performance, manage administrative routines, establish instructional development processes, and ensure external standards and accountability (Ezeuwa, 2005). Culture plays a significant role in educational systems, with traditions, habits, and heritage influencing school administrators and principals (Brauckman et al., 2016). The Dubai Schools Inspection Bureau (DSIB) in the UAE released a new inspection framework in 2015, focusing on achieving National Agenda Indicators and enhancing leadership effectiveness, accountability, and academic task prioritization, along with a guide for appointing school principals (Berkovich & Eyal, 2017). School leaders' main performance evaluation categories include instructional leadership, administrative tasks, human resources issues, student issues, parents' issues, and external leadership issues (Glesne, 2006).

The study analyzed the management styles and organizational cultures of two specialist higher education colleges in England, focusing on their merger to meet revised university status criteria (Gregoire, 2009). It concluded that management should consider the existing cultures and subcultures of the two colleges to ensure the successful integration of staff, students, and stakeholders (Gunter, 2008).

Management style assessment and prediction require an understanding of capability level, type, and context for accurate typologies (Hallinger, 2003). Studies on style and individual differences summarize organizational structure models for direct person-task matching (Ezeuwa, 2005).

Robinson et al. (2008) achieved a meta-analysis of twenty-seven investigations that revealed that instructional leadership, focused on goal setting, teachers' strategic involvement and support, and active participation in teachers' professional development, has a significantly stronger positive effect on learning outcomes than transformational leadership. The study identified five critical leadership practices that are particularly effective:

setting up aims and standards.

staff recruitment and management

identifying and reviewing instruction and courses

fostering and engaging in teachers' development

creating an organized and encouraging learning climate

Adopting these evidence-based leadership practices can considerably increase school leaders' impact on learners' outcomes.

An essential aspect of transformational leadership in education is promoting values and creating a positive environment for change and development in the educational setting. This leadership style has significantly impacted various forms of commitment among schoolteachers in Bengaluru, India. By promoting the school's vision and supporting the professional growth of educators, transformational leaders can enhance teachers' commitment to the school, personal development, and student progress (Kareem et al., 2023). In a cross-sectional survey, 1,173 schoolteachers in Bengaluru participated, and standard questionnaires were used to measure school principals' leadership practices and the level of teacher commitment. The outcomes showed a strong positive correlation between transformational leadership and three aspects of teacher commitment: commitment to the school, commitment to the students, and personal commitment. These findings suggest that transformational leadership is crucial in establishing a learning-centered educational environment.

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Developing and establishing an education support system promotes student success by encompassing academic achievement, personal growth, and critical social integration. Cognitive and motivational factors such as achievement goals, self-efficacy, and self-esteem are key to this, which significantly impact students' learning processes and outcomes (Phan, 2010). In addition, programs that integrate cognitive and social skills, like the Student Success Skills program, have been shown to improve students' academic performance and behavioral outcomes more sustainably due to their supportive system (Lemberger et al., 2012). Access to educational resources is another crucial factor for students' success. Open Educational Resources has gained recognition as an alternative to traditional textbooks, with most studies indicating that OER can be just as effective in academic achievement (Engler & Shedlosky-Shoemaker, 2019). These elements - cognitive and motivational support, comprehensive skills programs, and accessible resources - combine to form a system that provides all students equal learning opportunities while ensuring success.

Education Success in the quality of education

The educational quality in Turkey varies significantly among participating countries. This leads students to take specific exams to choose between secondary schools (Yıldırım, 2000). The Student Placement Test (SBS) is crucial for primary school students to enter secondary schools in the Turkish education system. It prioritizes academic success, with students expected to excel by their families, teachers, and environment (Şama & Tarım, 2007). However, Turkish students' success in national exams and international assessments has been low. Succeeding in secondary school can pave the way for better high school and university educations for chosen professions (Tabachnick & Fidell, 2007). The quality of education depends on students' cognitive abilities, skills, teachers' professionalism, parental support, and intuitions. The research findings could enhance students' academic attitudes and improve the quality, worth, and capacity building for higher education teachers and students (Kiev, 2009).

Education Success in the Educational Institute

They compare private and public educational institutions. According to Savaş & Gürel (2014), the longer students attend private educational institutions, the higher their grades. Private institutions cannot support students who cannot afford to participate for economic reasons (Savaş et al., 2010). However, the education system of these institutions must be evaluated, and schools should develop structures to avoid dependency on private institutions (Kuyper et al., 2000). Regarding studying habits, they have a positive impact on academic success. Students who dedicate more time to studying are more successful (Bruinsma & Jansen, 2005). A study found that increased studying time leads to higher student grades (Wolters, 1999). According to Kiev (2009), education is crucial for students' success as it prepares them for future roles and life success. However, many students need more apparent purposes and goals to avoid unproductive activities. Goal setting in academics plays a pivotal role, empowering students to take control of their learning and ensuring they have the necessary knowledge and skills to achieve their academic goals.

2. Theoretical Approaches

Various theories, including Constructivist Theory, Humanistic Psychology, and Educational Psychology, guide students in Psychology. Constructivist Theory emphasizes cognitive development stages and social interaction. Cognitive constructivism is an individualistic perspective based on the work of Swiss developmental psychologists (Piaget, 1977). Piaget's Theory posits that learning occurs through actively constructing meaning and adjusting our thinking to restore equilibrium. Social-cultural constructivism is influenced by societal factors, with (Vygotsky, 1986) arguing that the process of knowing is influenced by community and culture. Vygotsky argues that children's minds are inherently social, and speech development follows this, moving from communicative social to inner egocentric. Thus, thought develops from society to the individual, not vice versa. Constructivism is an educational theory that emphasizes teachers' role in students' knowledge and application (Mvududu & Thiel-Burgess, 2012). It has evolved from behaviorism to cognitivism and back to constructivism. Variations include Piaget's constructivism and Vygotsky's social constructivism (Hoover, 1969), which introduces the notions of learners constructing new understandings and learning as an active process. Humanistic Psychology, developed by Abraham Maslow and Carl Rogers, emphasizes a hierarchy of needs and

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a supportive learning environment. It emerged as a response to the limitations of behaviorist and psychodynamic psychology, emphasizing self-actualization as the goal. Humanistic education offers an alternative to the factory model, valuing individual choice and responsibility and promoting self-fulfillment (Larsen & Buss, 2012). It encourages teachers to understand students' cognition, emotions, interests, motivation, and potential, promoting self-actualization and creativity (McLeod, 2007). It also provides researchers with a flexible framework for observing human behavior. Educated by Dewey's Pragmatism and Bruner's Discovery Learning, Educational Psychology emphasizes experiential learning and active discovery. Dewey's educational philosophy emphasizes the importance of experience, continuity of experience, and the learning environment as a manifestation of life. He views education as an experiential continuum of knowledge, experiences, and individual growth. Schools should be flexible, allowing children to experience materials, interact socially, and participate in group life. (Dewey, 1938) also emphasizes the importance of interaction in educational experiences, allowing students to discover their potential and apply their knowledge to real-world situations. The role of the educator is to understand children's capacities and adapt the experiences to their needs.

Behavioral Science

Applied Behavior Analysis (ABA) uses behavioral principles to assist students with diverse learning needs. It influences behavior through reinforcement, punishment, social learning theory, and role models. The social context and role models are crucial in the learning process, improving the effectiveness of behavioral interventions.

Psychological Patterns, Behavioral Science, and Mediation of Cognitive

Understanding human behavior and mental processes involves integrating psychological patterns, behavioral science, and cognition. This multidisciplinary approach helps us comprehend how individuals think, feel, and behave in different contexts. Psychological Patterns are recurrent behaviors, thoughts, and emotions observed over time in individuals, influenced by genetic, developmental, and environmental factors. These patterns can directly or indirectly impact human schemas and environmental reactions. Cognitive Schemes are assumed mental structures that help individuals organize and interpret information. They are formed based on past experiences and influence how new information is perceived and processed. Emotional regulation is how individuals manage and express their emotions. Understanding patterns in emotional regulation is critical for comprehending psychological resilience and vulnerabilities. Tendencies of behaviors can be adaptive or maladaptive, often shaped by reinforcement, punishment, social learning, and intrinsic motivations (Piaget, 1952; Beck, 2011).

Additionally, behavioral science examines how individuals interact with their environments to understand behavior. It includes psychology, cognitive science, and sociology (Bandura, 1986; Skinner, 1953). Considering the proposed model, cognition as a mediator involves the mental processes of gaining knowledge and comprehension, including thinking, knowing, remembering, judging, and problem-solving. Attention is focusing cognitive resources on a specific information source while disregarding others. It is crucial for perception, memory, and learning. Memory processes include encoding, storing, and retrieving information essential for learning and applying knowledge. Executive functions and decision-making are cognitive processes that enable individuals to plan, focus attention, remember instructions, and successfully manage multiple tasks. Heuristics, biases, and risk assessments also influence them (Tversky & Kahneman, 1974; Beck, 1976; Baddeley,1992; Diamond, 2013).

Consider cognitive attitude and its role as a mediator, as shown in Figure 1. The concept of cognition as a mediator between behavioral science and psychological patterns is a fascinating study area. It helps bridge the gap between observable behaviors and the underlying mental processes. Behavioral science studies observable behaviors such as learning and educational motivation and how environmental, experiential, and biological factors influence them (Neisser, 1967; Kahneman, 2011).

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Cognition as a Mediator

Cognition involves mental processes like thinking, memory, decision-making, and problem-solving and mediates different aspects of behavioral causes and cognitive reactions. Cognitive processes help us interpret environmental cues and decide how to behave. Similarly, our beliefs and attitudes impact the formation and maintenance of behaviors. Additional cognitive assessments determine our emotional reactions, which then influence our behavior. Cognitive interventions like cognitive behavioral therapy (CBT) aim to change unhelpful thought patterns and alter emotional responses and behaviors. For example, challenging irrational beliefs can decrease anxiety and improve coping behaviors. Cognition is crucial in bridging the gap between observable behaviors studied in behavioral science and internal psychological patterns. Researchers and practitioners can develop more effective interventions to improve mental health and modify behaviors by focusing on cognitive processes. This integrative approach comprehensively explains human behavior and mental functioning (Ellis, 1962; Beck, 1976).

Based on the model below, the influence of psychological patterns and behavior on actual performance and reactions in various situations and aspects is discernible. Delving deeper into identifying the main factors can generate a combination of behavioral responses stemming from individual cognition and attitudes toward personal and social life, which can manifest in different ways and performances. As depicted in the researchers' model, human behavior's fundamental nature and concept originates from their perception of the environment and external factors, which gradually shape various facets of human behavior. Furthermore, the received data must be considered, encompassing internal factors primarily linked to individuals' understanding and feelings in both personal and social spheres. These factors and indicators convey a significant message for all. Personal and social life enhance one's performance and relationships with others.
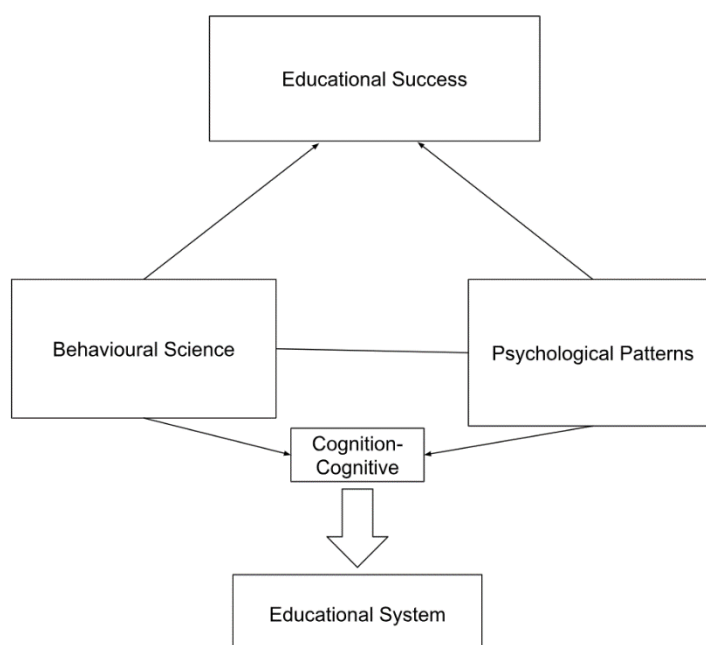

Fig 1: Theoretical Model

3. Methodology of the Study

Qualitative research focuses on feelings, ideas, or experiences, aiming to find testable hypotheses through narrative data collection; educators use non-numerical methodology to identify patterns or fresh perspectives (Philipsen & Vernooij-Dassen, 2007). The study employs a qualitative approach to explore educational practices involving stakeholder perspectives, context-specific psychological, cognitive, and behavioral sciences applications, and detailed qualitative data analysis to uncover patterns and relationships. The study utilizes

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interpretivism, meaning interpretivism focuses on understanding human behavior and social life, arguing that objective truth cannot be discovered through social investigation, allowing for a holistic view of research objectives (Hill et al., 2010). A philosophy that focuses on understanding individual subjective experiences to explore how psychology, cognitive, and behavioral sciences influence educational practices and student success. The study uses secondary data from academic journals, government reports, and case studies to analyze psychology, cognitive science, and behavioral science in education. This provides a comprehensive foundation for analyzing existing research and insights from 1927 to 2023, referencing sixty-five different findings, as mentioned below in Table 1. The study uses an inductive methodology to investigate how behavioral, cognitive, and psychological concepts might be incorporated into educational institutions to increase student achievement. Research Time Horizon is Cross-sectional - One-time research is done from April 2024 to August 2024. The study relies on secondary data, which may be limited by the scope and quality of existing research, potentially resulting in gaps or biases that could impact the findings (Viswanathan et al., 2018). The study's conclusions may not be universally applicable due to its qualitative nature and its reliance on existing data, which may not fully capture current trends and innovations in education (Kozleski, 2017). Interpretivism, a philosophy emphasizing contextual understanding, can introduce subjectivity as interpretations are influenced by the researcher's perspective and selected secondary data (Schwandt, 1994).

Table 1. Summary of the studies.

Authors	Year	Aim/ Findings
Pavlov	**1927**	**Ivan Pavlov's "Conditioned Reflexes" focused on the process of conditioned reflexes and proved that dogs could be conditioned to salivate to a bell which is an unconditional stimulus when it is always followed by food.**
Dewey	**1938**	**According to Dewey, education must guarantee society's needs as well as the child's interests as a way of supporting education through experience.**
Piaget	**1952**	**Jean Piaget's The Origins of Intelligence in Children is devoted to the study of cognitive processes in children and determines that intelligence is best understood as a gradual progression of stages through which a child must progress.**
Skinner	**1953**	**B. F Skinner's "Science and Human Behavior" is a work that discusses the work of operant conditioning in which human behavior is determined by reinforcers and punishers that are within the context of the environment.**
Ellis	**1962**	**Albert Ellis's book focuses on the activity called Rational Emotive Behavior Therapy because emotions are considered to be the results of certain kinds of beliefs that are referred to as irrational, and if people change those beliefs, their emotions are going to improve as well.**
Neisser	**1967**	**The topic of Ulric Neisser's historic article defines cognitive psychology as a scientific field that examines the processes related to the acquisition of knowledge with an emphasis on perception, memory, and problem-solving.**
Tversky & Kahneman	**1974**	**This paper demonstrates how people tend to use heuristics to make decisions which causes systematic errors in judgement in cases of risk and ambiguity.**

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Authors	Year	Aim/ Findings
Beck	**1976**	**Aaron Beck has provided information on the concept of cognitive therapy to which he was a key contributor: it is agreed that negative automatic thoughts and cognitive distortions are critical to the emotional disorders such as depression and that changing such thoughts can help to overcome the signs.**
Piaget	**1977**	**Equilibration is the idea discussed by Jean Piaget where equilibration is viewed as one of the key processes in cognitive development that is aimed at the adaptation of the child's cognitive structures based on new experiences.**
Bandura	**1986**	**This article describes social cognitive theory by Albert Bandura, still focusing on observational learning, self-efficiency, and reciprocal causation as the model of human behavior and thought.**
Vygotsky	**1986**	**Vygotsky's prominent work is based on the analysis of the connection between thought and language focusing on the social and cultural context which is closely connected with the concept of the Zone of Proximal Development.**
Seligman	**1991**	**Martin Seligman produces learned optimism claiming that people can change hopelessness and embrace methods of enhancing their well-being by adopting a better way of explaining events.**
Wentzel	**1991**	**Using Wentzel's findings, it is seen that social competence, social responsibility and prosocial behaviors are positively related to academic achievement in school.**
Baddeley	**1992**	**In the article that can be attributed to Alan Baddeley, the author expounds on the working memory- a temporary holding and processing system for information and how it is centrally implicated in cognition including reasoning, learning, and comprehending.**
Schwandt	**1994**	**He explained about interpretivism, a philosophy that emphasizes contextual understanding, and can introduce subjectivity as interpretations are influenced by the researcher's perspective and selected secondary data.**
Hoover	**1996**	**William Hoover brings to the learning theory of constructivism in relation to education and details the latter in an endeavor to understand how learners construct knowledge and experiences in their learning process.**
Wolters	**1999**	**Clyde Wolters examines students' propensity towards the regulation of motivation with regard to learning strategies, effort, and academic performance and opines that regulation of motivation may thus boost performance.**
Kuyper et al.	**2000**	**This paper aims to explore the correlation between motivation, metacognition, and self-regulation to long-term educational performance and the result shows a positive correlation between the performance and the factors.**

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Authors	Year	Aim/ Findings
Yıldırım	**2000**	**The study aims to determine the factors that may affect academic achievement, and concludes that loneliness, exam stress and social support predict students' achievement.**
Zimmerman	**2000**	**In the article, Zimmerman explains how self-efficacy an essential component of learning is; consequently, students' confidence boosts their motivation and success.**
Dewey	**2001**	**John Dewey's work is a classic example of the integration of education and democracy from its American perspective to support the kind of education system that prepares people to think critically and act democratically.**
Armstrong	**2003**	**Armstrong explained management is critical in fostering trust and visibility in schools, ensuring effective curriculum implementation, and promoting teacher collaboration**
Hallinger	**2003**	**The paper examines how both instructional and transformational leadership can collectively promote educational change in a positive manner through the improvement of student achievement and teachers' engagement.**
Avolio & Bass	**2004**	**Their findings on management strategies in educational organizations have evolved from personal experience to a scientific knowledge base in the 1980s and mid-1990s, addressing weaknesses and incorporating sophisticated methods**
Bruinsma & Jansen	**2005**	**This work aims to describe the determinants of first year university students' academic achievement in the Netherlands with focus on academic achievement, motivation, and study behavior.**
Ezeuwa	**2005**	**This work explains principals must uniquely blend education, character, and performance, manage administrative routines, establish instructional development processes, and ensure external standards and accountability**
Dweck	**2006**	**Carol Dwek explains the principle called mindset, which divides into fixed and growth ones, and proves that people with the growth mindset are able to achieve more and stay persistent in the learning process.**
Glesne	**2006**	**He discussed the school leaders' main performance evaluation categories including instructional leadership, administrative tasks, human resources issues, student issues, parents' issues, and external leadership issues.**
McLeod	**2007**	**This article by McLeod gives a brief description of Abraham Maslow's contributions to the field of psychology with emphasis on the hierarchy of needs theory that holds that people are driven by a set of needs ranging from basic to higher level needs which include self-actualization.**

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Authors	Year	Aim/ Findings
McLeod	**2007**	**This work discusses the humanistic theory by Carl Rogers, the aspects of which include Self-actualization, Client centered therapy, Empathy and Unconditional positive regard.**
McLeod	**2007**	**In his article, McLeod provides an overview of the psychodynamic approach, concentrating on how the person's behavior and personality are influenced by unconscious processes and early years of life as stated by Freud and other followers.**
Philipsen & Vernooij-Dassen	**2007**	**They explained a qualitative approach in narrating it to educators using non-numerical methodology to identify patterns or fresh perspectives.**
Şama Tarım	**2007**	**The paper focuses on teachers' attitude and approach towards students who are labelled as low achievers; the study reveals that such labelling fosters negative perceptions as well as behaviors that hamper the students' progress.**
Tabachnick & Fidell	**2007**	**This textbook aims at presenting detailed information about the utilization of multivariate statistical techniques in research and offers useful tips on how different data can be analyzed in different fields.**
Robinson et al.	**2008**	**The paper aims at comparing the roles of instructional and transformational leadership in educational settings in relation to the students, revealing that instructional leadership positively impacts students' performance much more than the transformational leadership.**
Kiev	**2009**	**Interviewing the best performers of the financial markets Abe Kiev shares with the readers psychological approaches and mental tools of a successful trader and stresses the significance of discipline and self-control.**
Gunter	**2008**	**This research focuses on the nature of change in educational leadership positions due to policy reforms in England with special concern to the rise in managerialism and accountability.**
Gregoire	**2009**	**He said that the school leadership involves influencing others to achieve goals, with evaluation focusing on student achievement, curriculum alignment, data-driven instruction, and parent involvement**
Rautiola	**2009**	**This thesis research deals with the effects of different leadership styles on students' performance and finds that authoritative and transformational leadership styles are commonly more favorable for learners.**
Phan	**2010**	**Based on the literature review, Phan integrates a theoretical framework that describes the contribution of motivation, self-regulation, and metacognition towards students' academic performance.**

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Authors	Year	Aim/ Findings
Savaş et al.	**2010**	The research focuses on effective components that determine performance of students in mathematics; these are prior knowledge, quality of instructional methods, and perception of the subject by the students.
Hill et al.	**2010**	The study employs interpretivism, a method that posits that objective truth cannot be derived from social investigation, providing a comprehensive perspective on research objectives.
Bell	**2010**	He mentions that he association between leadership styles and school interpretation is complicated, with firm principals planning strategically and achieving set targets
Beck	**2011**	In this article Judith Beck delivers an extensive description of cognitive behaviour therapy (CBT) and its key concepts as well as methods to change cognition and behaviour in the case of various mental disorders.
Kahneman	**2011**	Daniel Kahneman speaks about the two-process theory of thinking that separates the automatic thinking known as System 1 and the controlled thinking or System 2 and how these two systems work in the decision-making process.
Sweller	**2011**	This book expounds on the concept of cognitive load, which relates to the amount of effort that is required when learning and thus the way in which instructions are given to learners should accommodate the levels of cognitive load.
Baddeley	**2012**	In the present paper, Alan Baddeley discusses different theories and models of working memory and influences, controversies, and developments in the study of this cognitive system in terms of complex cognitive works.
Larsen & Buss	**2012**	Larsen and Buss offer detailed description and critical evaluation of the main theories of personality as well as of the research techniques commonly used in personality psychology.
Lemberger	**2012**	This article describes the model of Student Success Skills that includes both academic and socio-emotional activities to raise the accomplishment level and to improve the students' skills in self-regulation, social interactions, and goal setting.
Mvududu	**2012**	The authors support the use of constructivism in the classroom for ELLs, as active participation and contextual learning enhances the learning process of the second language.
Diamond	**2013**	Adele Diamond looks at the executive functions including cognitive flexibility, working memory, and inhibition as well as their key functions in learning and development, explaining the significance of these functions in students' performance and social behaviour.

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Authors	Year	Aim/ Findings
Savaş & Gürel	**2014**	In this paper, the various influential factors that affect students' performance shall be elucidated including the socio-economic status, parents' engagement, and initiative-taking drive, hence the realisation that it is not a simple affair to achieve in academic endeavours.
Arbabi & Mehdinezhad	**2015**	The authors explained school leadership, including transformational and instructional styles, significantly impacts students' academic and non-academic outcomes. Effective management of these styles is crucial for societal demands and educational system development.
Duckworth	**2016**	The book by Angela Duckworth focuses on the subject of grit which the author defines as the drive and determination and suggests that it should be considered as a key factor that influences peoples' success in different spheres.
Aydina et al.	**2016**	They explained that leadership plays a significant role in fostering school improvement over time, as it directs members toward achieving organisational goals.
Brauckman et al.	**2016**	They mentioned that culture plays a significant role in educational systems, with traditions, habits, and heritage influencing school administrators and principals
Berkovich & Eyal	**2017**	They highlighted that in 2015, the Dubai Schools Inspection Bureau introduced a new framework aimed at achieving National Agenda Indicators, improving leadership effectiveness, accountability, and academic task prioritization.
Kozleski	**2017**	He explains that the study's findings may not be universally applicable due to its qualitative nature and reliance on existing data, which may not fully capture current trends and innovations in education.
Viswanathan et al.	**2018**	The study's reliance on secondary data may lead to potential gaps or biases in the findings due to the limitations of existing research.
Engler & Shedlosky-Shoemaker	**2019**	The paper discusses the impact of adopting OER in teaching introductory psychology and its effectiveness in improving students' learning outcomes due to the availability of top-notch learning resources.
CASEL	**2020**	The guide describes a clear plan for the integration of social and emotional learning (SEL) in schools and focuses on the positive effects of teaching the students on emotions, self-awareness, and interpersonal interactions.
Yeager & Dweck	**2020**	This article responds to some of the issues people find with a growth mindset, distilling misunderstandings and re-emphasizing the need for belief in the capacity to develop one's intelligence and skills through practice.

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Authors	Year	Aim/ Findings
Tooth et al.	**2022**	**The authors present the historical perspective of assessment in education, focusing on the development of this concept and its relevance to the modern understanding of the future trends in assessment where the focus is made on the significance of the formative assessment rather than the traditional summing up.**
Kareem et al.	**2023**	**The findings of this research demonstrate that transformational leaders in education can play a crucial role in increasing educators' organizational commitment and job satisfaction through the shared vision.**
Sesztakov	**2023**	**The researcher focused on human thought, emotion, and behavior and believes psychology helps understand crucial mental operations such as perception, remembering, and problem-solving.**

4. Findings

The study highlights the importance of interdisciplinary research on the nature of psychology. Psychology covers subfields such as developmental, social, clinical, and cognitive psychology and offers comprehensive insights into human thought, emotion, and behavior. Integrating cognitive science into psychology helps understand crucial mental operations such as perception, remembering, and problem-solving (Sesztakov, 2023). These processes are essential for human cognition and behavior. In education, psychological principles are vital and empowering, as they play a crucial role in optimizing educational environments and instructional strategies. Furthermore, education benefits from psychological insights by addressing motivation, assessment, and instructional design, improving teaching effectiveness and learning outcomes. Therefore, psychological research has practical applications, influencing educational practices, policy decisions, and interventions that promote psychological well-being and cognitive development.

The Relationship Between Behavioral Science and Cognitive Processes helps explain how behavioral science focuses on observable behaviors and the stimuli shaping them. It is influenced by theories like Pavlov's classical conditioning and Skinner's operant conditioning. Additionally, psychological patterns provide insights into how individuals think, feel, and act, which is essential for understanding personality, emotions, and mental health. Cognition bridges behavioral science and psychological patterns by mediating the relationship between observable behaviors and psychological processes.

Educational success and psychological factors are crucial in student engagement and performance. Psychological aspects, such as motivation, self-efficacy, and emotional well-being, significantly impact student performance. Similarly, cognitive processes, including attention, memory, and problem-solving, are essential for understanding effective learning and academic achievement. Holistic educational approaches integrating psychological support and behavioral interventions foster cognitive development and academic success. It is necessary to highlight the significance of historical and technological advances in educational assessment. Educational assessment has evolved from paper-and-pencil formats to advanced computer-based testing, improving its validity and reliability. However, modern assessment technologies often lack a connection to real-life classroom practices, emphasizing the need to integrate psychological theories with statistical and technological approaches for better-quality assessments. School leadership styles, such as transformational and instructional leadership, significantly impact student performance. Effective school leadership involves setting goals, supporting teachers, and creating a conducive learning environment. Transformational leadership promotes values and positive change, enhancing teacher commitment and student development.

Additionally, educational support systems and resources are indirectly influenced by cognitive and motivational variables, such as self-efficacy and achievement goals, significantly impacting learning processes and outcomes.

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Programs that align cognitive and social skills, such as socio-emotional learning (SEL), improve students' academic performance and behavioral outcomes. Access to resources, including Open Educational Resources (OER), provides equal learning opportunities, contributing to educational success. Behavioral influence and psychological matters have meaningful contributions to positive study habits. Increased study time is correlated with higher academic achievement.

In conclusion, the theoretical concepts and framework of the study should mention that the constructivist theory emphasizes cognitive development stages and social interaction. The role of humanistic psychology, focusing on self-actualization and a supportive learning environment, is essential. Educational psychology emphasizes experiential learning and active discovery, influenced by Dewey's pragmatism and Bruner's discovery learning.

5. Conclusion

In conclusion, this research study emphasizes the crucial role of interdisciplinary research in advancing our understanding of psychology, specifically focusing on cognitive science. The study offers a comprehensive perspective on human thought, emotion, and behavior by incorporating various subfields such as developmental, social, clinical, and cognitive psychology. Generally, this research endeavored to show the critical role of psychology and behavior as bold factors and receiving ideas and attitudes from outside and inside in the performance and reaction of individuals. Integrating cognitive science into psychology helps comprehensively understand fundamental mental processes. These insights are particularly relevant in educational settings influenced by varied factors, where psychological principles significantly enhance teaching methods and learning outcomes. Psychology addresses motivation, assessment, and instructional design to improve teaching effectiveness and inform educational practices, policies, and interventions to promote mental well-being and cognitive development. The linkage of behavioral science with cognitive processes enriches our understanding further. Based on theories, behavioral science focuses on observable behaviors and the stimuli influencing them. Psychological patterns provide deeper insights into individual thoughts, emotions, and actions, essential for understanding personality, emotions, and mental health. Cognition acts as a bridge, connecting behavioral observations with underlying psychological processes. Educational success is closely tied to psychological factors, significantly impacting student engagement and performance. Psychological aspects such as motivation, self-efficacy, emotional well-being, and cognitive processes like attention, memory, and problem-solving are crucial for effective learning and academic achievement. A holistic system integrating psychological aid with behavioral interventions fosters cognitive development and academic success. The evolution of educational assessment, from traditional paper-and-pencil methods to advanced computer-based testing, underscores the importance of integrating psychological theories with statistical and technological approaches to enhance assessment quality and relevance.

Whether transformational or instructional, effective school leadership plays a critical role in student performance by setting goals, supporting teachers, and creating a conducive learning environment. Transformational leadership particularly promotes positive change and enhances teacher commitment and student development. Educational support systems and resources, influenced by cognitive and motivational variables such as self-efficacy and achievement goals, significantly impact learning processes and outcomes. Programs that integrate mental and social skills, the same as SEL, improve academic performance and behavioral outcomes. At the same time, access to resources like OER ensures equal learning opportunities and contributes to educational success. The last part of the conclusion explains that the theoretical framework highlights the importance of constructivist theory, which stresses cognitive development stages and social interaction. All the theories' perspectives collectively enhance our understanding of psychology's role in education, providing a foundation for future research and practice.

Additionally, these findings and ideas can be helpful for all those who work or are charged with psychology, the educational system for having better support and attention to students, and all those who engage in study. These people in charge must provide a convenient and peaceful environment and teach them how to face different situations and conflicts in various conditions. These methods and leadership can be helpful for all students, scholars, and ordinary people.

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6. Limitations of the study

The study emphasizes the importance of empirical evidence to support theoretical concepts, which are often lacking. Although the research offers a thorough analysis of interdisciplinary applicability in psychology, cognition, and behavioral science, the limited empirical evidence could hinder the practical application of the conclusions. Including more empirical data would enhance the study's credibility and practical implications.

7. Recommendations for Future Studies

Incorporate Empirical Studies: To strengthen the study's theoretical foundation, future research should include empirical research in experimental and longitudinal studies to support the proposed concepts and frameworks. This would demonstrate the benefits of combining psychological, cognitive, and behavioral sciences in education.

Contextual Specificity: Future work should examine specific educational environments, such as comparing the results of students in private and public schools or the effects of socio-economic status on educational achievement. This would help us understand how various scenarios and circumstances influence the utilization and resulting impact of the theories described.

Expanding the scope of research to include cross-cultural studies is essential. This approach can provide valuable insights into how cultural factors influence the interaction of psychological and educational approaches. Understanding these differences is crucial for developing global ideas for teaching and learning practices.

Focus on Technological Integration: Due to the growing integration of technology in learners' education cycles in the future, future research should seek to establish the effects of technological devices and online learning environments on learners' mental growth. This involves evaluating how ICT can improve education, particularly computerized testing, and internet-based applications.

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