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# Designing an Excellence-Oriented Foresight Model of Positive Psychology Dimensions for Enhancing Students' Academic Progress and Academic Buoyancy

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### ABSTRACT

**Purpose:** The present study aimed to design a future-oriented excellence model based on positive psychology dimensions to explain and enhance students' academic buoyancy and academic progress toward the 1414 national educational horizon.

**Methods and Materials:** This study employed an applied mixed-methods exploratory sequential design grounded in a futures studies approach. The research population consisted of educational experts, policymakers, academic staff, educational psychologists, school administrators, and foresight specialists in Kurdistan Province. Purposeful sampling was conducted in two stages. First, semi-structured interviews were carried out with 23 experts until theoretical saturation was achieved. Subsequently, a 10-member strategic panel was formed to conduct structural analysis. Data collection instruments included a semi-structured interview protocol and a structured MICMAC questionnaire. Qualitative data were analyzed using systematic thematic analysis, resulting in the extraction of base, organizing, and overarching themes. Structural interactions among identified variables were examined using MICMAC software to calculate influence-dependence relationships, matrix stability, and system dynamics. Scenario development was conducted using a 2×2 scenario matrix combined with conceptual synthesis to construct the final excellence-oriented model.

**Findings:** Structural analysis of the 11×11 interaction matrix indicated a system characterized by high interdependency and dynamic instability, reflecting complex interactions among psychological, pedagogical, technological, and governance factors. The matrix demonstrated 33.79% density with optimized stability after two rotations, confirming the robustness of expert judgments. Key driving variables included motivational-supportive learning ecosystems, transformative learning-centered assessment, and active deep pedagogy, which exerted strong direct influence on learner agency and technology-enhanced learning. Bidirectional variables such as teacher professional transformation, smart technology integration, and future-oriented educational governance showed both high influence and dependency.



Dependent variables included innovative educational ecosystems, holistic learning systems, flexible differentiated learning, and self-directed learner development. Results indicated that systemic improvement in assessment practices and supportive learning environments functions as the principal leverage mechanism for strengthening academic buoyancy and long-term academic progress.

**Conclusion:** The findings demonstrate that academic buoyancy cannot be improved through isolated psychological interventions but requires an integrated excellence framework combining positive psychology capacities, adaptive pedagogy, technological learning environments, collaborative educational networks, and future-oriented governance. The proposed foresight-based model provides a systemic roadmap for educational transformation by aligning individual psychological strengths with institutional innovation and policy development, thereby enabling sustainable enhancement of students' academic vitality and achievement in future educational systems.

**Keywords:** *Academic Buoyancy, Positive Psychology, Futures Studies, Educational Excellence Model, Academic Progress, Educational Innovation, Learning Ecosystem, Future-Oriented Governance*

## 1. Introduction

Education systems in the twenty-first century are increasingly confronted with complex psychological, technological, and social transformations that require moving beyond traditional achievement-centered paradigms toward holistic models emphasizing adaptability, psychological resilience, and sustainable learning engagement. Among emerging constructs in educational psychology, *academic buoyancy* has gained substantial attention as a key psychological capacity enabling students to successfully cope with everyday academic setbacks, pressures, and challenges. Unlike resilience, which focuses on severe adversity, academic buoyancy refers to students' ability to respond positively to routine academic difficulties such as examinations, workload stress, performance anxiety, and motivational fluctuations (Collie et al., 2017; Collie et al., 2015). Contemporary research suggests that fostering academic buoyancy is essential not only for academic achievement but also for long-term psychological well-being and lifelong learning readiness.

Academic buoyancy is increasingly recognized as a multidimensional construct shaped by cognitive, motivational, emotional, and contextual factors. Empirical evidence demonstrates that students with higher levels of academic buoyancy show greater persistence, adaptive learning strategies, and improved academic performance outcomes (Abdellatif, 2022). Studies examining academic engagement further indicate that buoyant learners maintain motivation despite academic obstacles and demonstrate higher learning engagement mediated by hope, optimism, and psychological resources (Chen et al., 2020; Sadoughi &

Hesampour, 2019). Such findings highlight that academic success cannot be understood solely through cognitive ability; instead, psychological strengths play a central mediating role in students' educational trajectories.

Positive psychology provides a theoretical foundation for understanding academic buoyancy by emphasizing strengths, flourishing, and adaptive functioning rather than deficit-based educational models. Constructs such as emotional intelligence, self-compassion, optimism, and psychological well-being have been shown to enhance students' capacity to cope with academic stressors and sustain learning motivation (Mozaffarirad et al., 2024). Similarly, academic hope has been identified as a powerful predictor of engagement and persistence, operating through buoyancy as a mediating psychological mechanism (Feizi Shirabadi et al., 2024). These findings collectively demonstrate that academic buoyancy functions as a psychological bridge connecting internal strengths with observable academic behaviors.

Self-regulation and metacognitive processes constitute another core dimension underlying academic buoyancy. Research indicates that students who effectively regulate emotions, cognition, and motivation are better able to manage academic challenges and maintain adaptive performance patterns (Mahbod & Yousefi, 2022; Shafiei & Roohi Hadid, 2023). Structural models further reveal that self-regulation influences academic performance indirectly through academic engagement and buoyancy mechanisms (Kord et al., 2023). The mediating role of metacognitive beliefs has also been empirically confirmed, suggesting that students' awareness and regulation of learning processes



significantly contribute to buoyant academic functioning (Najafipour Divkolaei et al., 2021).

Motivational and personality-related variables likewise play decisive roles in shaping academic buoyancy. Factors such as grit, mental toughness, and perceived control have been integrated into contemporary structural models explaining how students sustain effort and overcome academic difficulties (Tammeh et al., 2025). Growth mindset and emotional intelligence further strengthen psychological resources supporting adaptive academic responses (Liu, 2025). Additionally, satisfaction of basic psychological needs and goal orientation patterns significantly predict students' buoyancy levels, reinforcing the relevance of self-determination perspectives in educational research (Khodashahi, 2025).

Beyond individual psychology, learning environments and instructional practices strongly influence academic buoyancy development. Constructivist learning climates, family emotional atmosphere, and classroom engagement have been identified as contextual predictors of buoyant academic behavior (Fakharian et al., 2019). Active learning methodologies, including innovative instructional strategies such as brainstorming and TRIZ-based instruction, have demonstrated significant effectiveness in enhancing engagement and academic buoyancy simultaneously (Fatehi Sineh Sar et al., 2023). Teacher–student relationships also constitute a central environmental factor, as supportive interpersonal interactions foster students' self-efficacy and emotional stability in learning contexts (Lari et al., 2019; Mirhashemi Roteh & Shokri, 2018).

Technological transformation represents another critical dimension influencing contemporary academic functioning. Digital learning environments introduce new opportunities while simultaneously increasing cognitive load and multitasking demands. Studies examining online and face-to-face learning contexts show that academic self-efficacy and self-regulated learning moderate the relationship between technology use and academic performance (Alghamdi et al., 2020). Moreover, integration of digital literacy and computer competence has been shown to strengthen creativity through the mediating role of academic buoyancy, indicating the expanding relevance of technological competence in modern learning ecosystems (Yegani et al., 2023). Recent research on learning emotions similarly demonstrates that buoyancy significantly affects self-regulated learning strategies within technologically mediated classrooms (Xu & Wang, 2024).

Motivational constructs related to responsibility, persistence, and optimism further deepen understanding of academic buoyancy development. Educational interventions promoting academic responsibility have proven effective in increasing students' adaptive coping and engagement capacities (Kahzadi et al., 2021). Likewise, academic optimism and motivational beliefs serve as mediating pathways linking hope and achievement outcomes (Gholamipour et al., 2019). Causal models integrating self-esteem, love of learning, and self-regulation confirm that buoyancy operates within a broader motivational network supporting sustained academic functioning (Ghadampour et al., 2020). These results emphasize that academic buoyancy emerges through dynamic interaction between personal motivation and environmental support systems.

Alongside psychological and pedagogical perspectives, recent scholarship increasingly highlights the necessity of adopting a future-oriented outlook in educational planning. Rapid technological, social, and economic changes require educational systems capable of anticipating uncertainty and preparing learners for evolving future conditions. Futures studies offer methodological tools for envisioning alternative educational scenarios and identifying key drivers shaping long-term learning outcomes (Goharifar et al., 2015). Strategic foresight models emphasize scenario planning and systemic analysis as essential mechanisms for navigating complexity in organizational and educational environments (Shirvani Naghani et al., 2018). Applications of foresight methodologies using structural analysis software such as MICMAC further demonstrate their effectiveness in identifying influential variables within complex systems (Mousumi & Kahaki, 2017).

The integration of futures thinking into educational psychology reflects a broader paradigm shift toward future consciousness, emphasizing anticipation, adaptability, and proactive development of human capacities. According to future psychology perspectives, individuals' ability to imagine and prepare for future possibilities is central to psychological functioning and learning effectiveness (Lombardo, 2019). Foresight approaches have been successfully applied in diverse domains, including urban development and strategic planning, to identify driving forces shaping future systems (Alamati et al., 2022). Translating such approaches into education enables researchers to move beyond retrospective analysis toward proactive design of desirable learning futures.

In educational contexts, future-oriented perspectives are particularly relevant for enhancing academic buoyancy



because students' coping abilities must evolve alongside emerging learning environments. Career expectations, attitudes toward future employment, and academic self-confidence contribute to persistence and hope, thereby indirectly strengthening buoyancy mechanisms (Mehri et al., 2021). Psychological preparedness for uncertain futures thus becomes inseparable from academic success, reinforcing the importance of designing systemic educational models that integrate psychological development, instructional innovation, and institutional governance.

Despite substantial advances in research on academic buoyancy, existing studies largely examine isolated psychological variables or limited classroom contexts. Few investigations have adopted a comprehensive systemic framework integrating positive psychology, educational environments, technological learning, and futures studies perspectives simultaneously. Consequently, there remains a theoretical and methodological gap regarding how multiple interacting drivers collectively shape students' academic vitality within future educational systems. Addressing this gap requires combining psychological theory with foresight methodologies capable of modeling complex interactions among educational factors.

Therefore, developing an excellence-oriented future model grounded in positive psychology and foresight analysis offers a novel pathway for understanding and strengthening academic buoyancy at systemic levels. Such an approach aligns psychological capacities with pedagogical innovation, technological transformation, and governance structures, enabling educational systems to proactively cultivate adaptive learners prepared for uncertain futures.

The aim of the present study was to design a future-oriented excellence model explaining the role of positive psychology dimensions in promoting students' academic buoyancy and academic progress through a foresight-based systemic framework.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The present study was conducted using an applied mixed-methods design with an exploratory sequential logic grounded in a futures studies paradigm. The research followed a qualitative → quantitative (structural) → qualitative integration process aimed at designing an excellence-oriented future model for students' academic buoyancy and academic progress. The study population

consisted of educational experts, policymakers, researchers, school administrators, educational psychologists, curriculum specialists, academic counselors, technology and educational innovation professionals, and foresight scholars active in the field of education in Kurdistan Province. Participants were selected through purposeful sampling to ensure diversity of expertise, professional experience, and perspectives relevant to educational transformation and future-oriented learning systems. In the qualitative phase, semi-structured interviews were conducted with twenty-three experts until theoretical saturation was achieved, meaning that additional interviews no longer produced new conceptual insights. Following the qualitative phase, a strategic council composed of ten selected experts from among the interviewed participants was formed to conduct structural analysis and evaluate the interrelationships among the identified factors. Selection criteria included academic specialization, professional experience in educational planning or leadership, familiarity with foresight methodologies, and demonstrated engagement with student development and educational innovation. The integration of expert knowledge across disciplines enabled a systemic understanding of academic buoyancy as a multidimensional and future-dependent educational construct.

### 2.2. Measures

Data collection relied on complementary qualitative and quantitative instruments aligned with the exploratory mixed-methods framework. In the qualitative phase, a semi-structured interview guide was developed to explore expert perspectives regarding determinants of students' academic vitality, positive psychology capacities, future educational challenges, and transformation pathways within learning systems. The interview protocol allowed flexible probing while maintaining conceptual coherence across participants. Content validity of the interview questions was established through expert review prior to data collection. Interviews were recorded, transcribed verbatim, and documented carefully to ensure methodological transparency and credibility. In the quantitative structural phase, a structured MICMAC questionnaire was designed based on themes extracted from qualitative analysis. The questionnaire assessed the degree of influence and dependence among identified key factors using pairwise comparisons within a cross-impact matrix. Experts evaluated relationships among variables according to levels of impact intensity, enabling the construction of a direct influence matrix representing



systemic interactions. Reliability and rigor were ensured through multiple procedures including expert validation of instruments, peer review of qualitative coding, documentation of analytical decisions, and examination of matrix stability during structural analysis. The combination of qualitative insight and structured expert judgment allowed the study to bridge interpretive understanding with systematic modeling.

### 2.3. Data Analysis

Qualitative data obtained from semi-structured interviews were analyzed using systematic thematic analysis following the approach proposed by Braun and Clarke. The analysis proceeded through iterative stages of familiarization with the data, initial coding, identification of basic themes, organization of themes into higher-order categories, and synthesis into overarching thematic constructs. This process resulted in the extraction of ninety-nine basic themes, thirty-three organizing themes, and eleven overarching themes representing key drivers influencing the future of students' academic buoyancy, including teacher professional transformation, active learner development, flexible learning systems, active pedagogy, holistic learning environments, technology-based learning, transformative assessment, supportive motivational ecosystems, collaborative educational networking, educational innovation ecosystems, and future-oriented governance. Quantitative structural analysis was conducted

using MICMAC (LIPSOR-EPITA-MICMAC) software to calculate direct and indirect influence and dependence indices for each factor. The analysis generated influence–dependence maps, classification of variables into driving, linkage, dependent, and autonomous categories, and assessment of matrix optimization and stability. Scenario development was subsequently performed using a 2×2 scenario matrix logic, combining key strategic uncertainties identified through structural analysis. Finally, findings from qualitative themes, structural modeling results, and scenario interpretations were integrated through conceptual synthesis to construct the final excellence-oriented model explaining pathways for strengthening students' academic buoyancy and academic advancement within a future educational framework.

### 3. Findings and Results

Based on the construction of the 11×11 matrix and the calculation of two matrix rotations, it was determined that among the total of 96 evaluated influence and dependence relationships, 25 relationships had a value of zero (no influence), 10 relationships had a value of one (weak influence), 61 relationships had a value of two (moderate influence), and 25 relationships had a value of three (strong influence). Furthermore, the matrix fill rate was calculated as 33.79%, indicating a relatively high and dispersed level of interaction among the factors.

**Table 1**

*Initial Matrix Data Analysis and Cross-Impact Effects (n = 10)*

Indicators	Values Obtained After Two Matrix Rotations
Matrix dimension	11
Number of rotations	2
Number of zeros	25
Number of ones	10
Number of twos	61
Number of threes	25
Number of P	0
Total relationships	96
Fill rate	33.79%

The results also indicated that the research matrix achieved 100% optimization and adequacy after two rotations based on the examined variables, reflecting high validity of both the questionnaire and expert responses.

Following matrix completion, the level of influence (driving power) and dependence of each factor was calculated separately using MICMAC structural analysis software (see Table 2).

**Table 2**

*Driving Power (Influence) and Dependence of Factors (n = 10)*

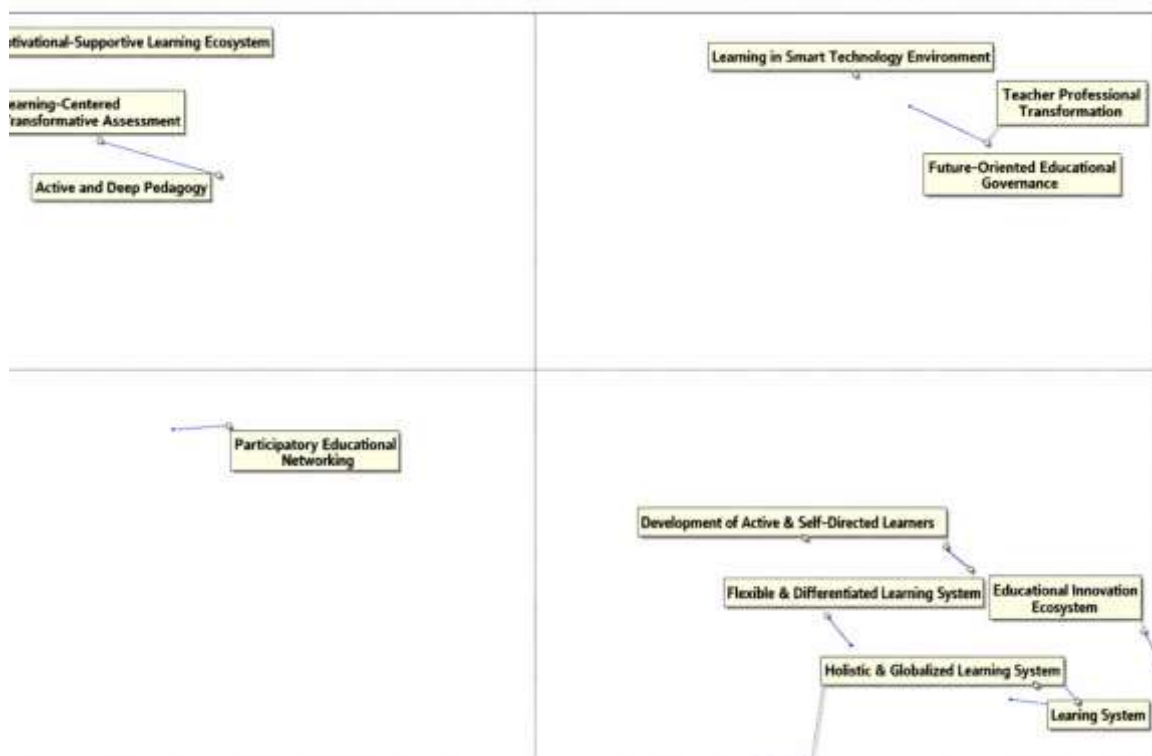
No.	Factor	Influence	Dependence
1	Teacher Professional Transformation in Education	22	22
2	Development of Active and Self-Directed Learners	15	21
3	Flexible and Differentiated Learning System	13	22
4	Active and Deep Pedagogy	22	14
5	Holistic and Globalized Learning System	12	20
6	Learning in a Smart Technology Environment	23	24
7	Learning-Centered Transformative Assessment	23	12
8	Motivational-Supportive Learning Ecosystem	24	12
9	Participatory Educational Networking	17	15
10	Educational Innovation Ecosystem	13	24
11	Future-Oriented Educational Governance	23	21
Total		207	207

Subsequently, the dispersion pattern of key factors influencing the future of students' academic buoyancy was analyzed. The results demonstrated that the system was unstable because factors were distributed across all positions within the influence-dependence coordinate space. According to the influence-dependence map, the motivational-supportive learning ecosystem, learning-centered transformative assessment, and active deep pedagogy were identified as independent or driving variables. In contrast, the educational innovation ecosystem,

development of active self-directed learners, flexible differentiated learning systems, and holistic global learning systems were classified as dependent variables. Furthermore, learning within smart technology environments, teacher professional transformation, and future-oriented educational governance were identified as linkage variables possessing both high influence and high dependence characteristics. Participatory educational networking was ultimately categorized as an autonomous factor.

**Figure 1**

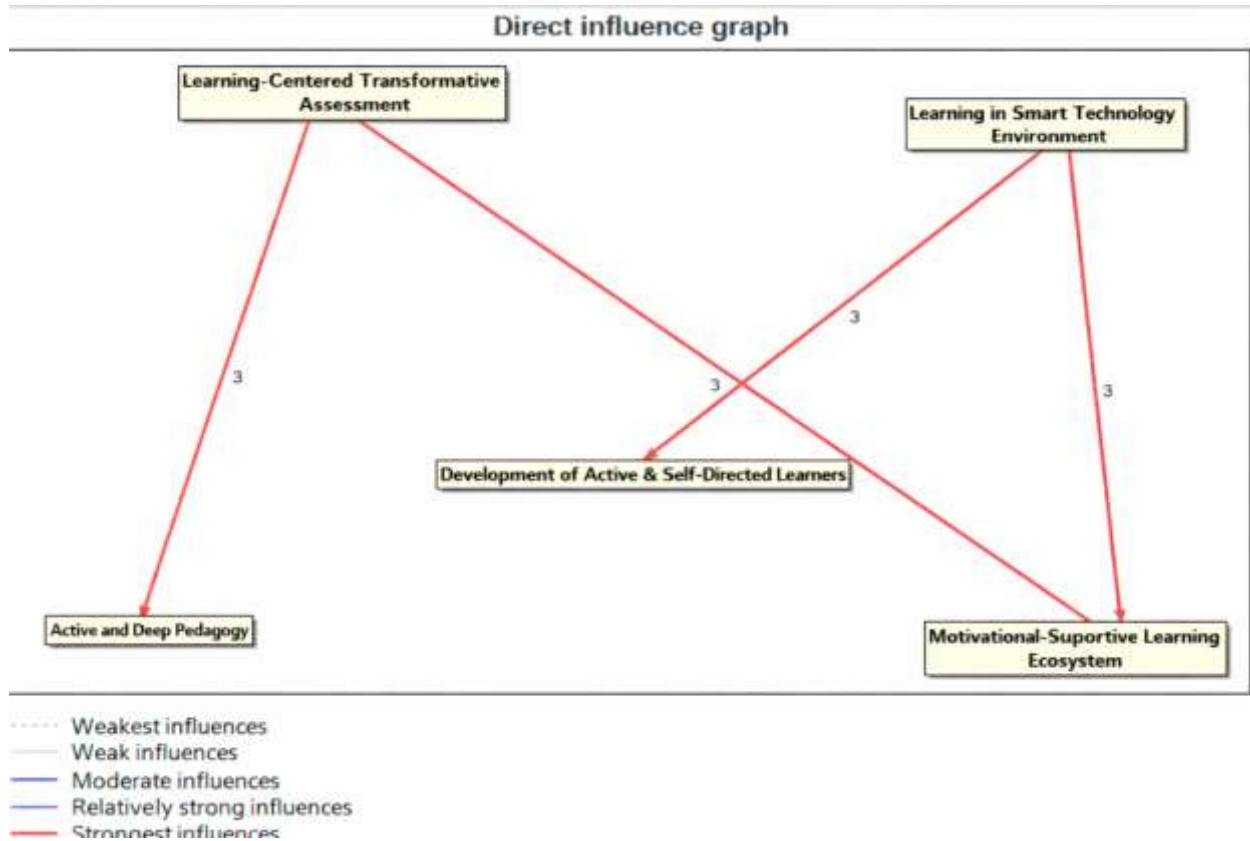
*Distribution Pattern of Key Factors Influencing the Future of Students' Academic Buoyancy*



To further clarify the interaction mechanisms among the identified variables, diagrams of direct and indirect effects at different analytical levels were produced.

**Figure 2**

*Direct Influence Diagram (5% Threshold Level)*



The strong direct influence diagram at the 5% level illustrates relationships among five selected key factors based on the strategic council's expert evaluations. Analysis of these relationships indicates that learning-centered transformative assessment exerts a strong and direct influence on both active deep pedagogy and the development of active self-directed learners. In addition, the motivational-supportive learning ecosystem demonstrates powerful direct effects on learner agency as well as learning within smart technological environments. These strong direct linkages suggest that transformation of assessment systems and the establishment of supportive learning ecosystems function as primary driving forces for activating pedagogy, empowering learners, and guiding technology integration. Within this structural configuration, learner agency, active pedagogy, and technology primarily operate as recipients of these strong influences, although the diagram represents only the strongest direct relationships and does

not capture the full complexity of weaker direct and indirect interactions within the overall system.

#### 4. Discussion and Conclusion

The present study aimed to design a future-oriented excellence model explaining the role of positive psychology dimensions in shaping students' academic buoyancy and academic progress through a systemic foresight framework. The findings revealed that academic buoyancy is not an isolated psychological characteristic but rather an emergent outcome of dynamic interactions among pedagogical, motivational, technological, governance, and environmental factors. Structural analysis demonstrated that variables such as the motivational-supportive learning ecosystem, learning-centered transformative assessment, and active deep pedagogy function as primary driving forces within the educational system, whereas learner agency, innovation ecosystems, and flexible learning structures operate as dependent outcomes shaped by these drivers. These results



reinforce the growing consensus that academic success must be understood through integrative ecological and systemic perspectives rather than individualistic explanations.

One of the most significant findings concerned the central role of a motivational–supportive learning ecosystem as a dominant driving variable. This result aligns with research demonstrating that psychological support, belongingness, and positive classroom climates significantly strengthen students' adaptive responses to academic stressors (Fakharian et al., 2019). Previous studies have shown that academic buoyancy develops when learners perceive emotional security and supportive social environments, which promote engagement and persistence despite difficulties (Collie et al., 2017; Collie et al., 2015). Similarly, teacher–student relationships contribute directly to self-efficacy and emotional regulation, both of which enhance students' coping abilities (Lari et al., 2019; Mirhashemi Roteh & Shokri, 2018). The present findings extend these perspectives by demonstrating that supportive ecosystems do not merely influence individuals but operate as systemic leverage points capable of transforming broader learning structures.

Another key finding highlighted the influential position of learning-centered transformative assessment. The structural model showed that assessment reform exerts strong direct effects on pedagogy and learner agency, suggesting that evaluation systems act as hidden regulators of educational behavior. This observation is consistent with research indicating that assessment approaches influence motivation, engagement, and academic persistence by shaping students' perceptions of competence and control (Sadoughi & Hesampour, 2019). When evaluation shifts from performance comparison toward formative and growth-oriented feedback, students develop stronger academic optimism and resilience. Studies examining academic responsibility and engagement interventions similarly demonstrate that learner-centered assessment enhances adaptive learning behaviors and buoyancy outcomes (Kahzadi et al., 2021). Therefore, assessment transformation appears to function as a structural catalyst connecting psychological empowerment with instructional innovation.

The identification of active and deep pedagogy as an independent driving factor further supports contemporary educational theories emphasizing student-centered learning. Instructional approaches that encourage participation, problem-solving, and creativity have been shown to significantly increase academic engagement and buoyancy

(Fatehi Sineh Sar et al., 2023). Active pedagogy strengthens intrinsic motivation, promotes autonomy, and enables learners to interpret academic challenges as opportunities rather than threats. This interpretation corresponds with models emphasizing self-regulated learning and emotional regulation strategies as foundations for academic buoyancy (Mahbod & Yousefi, 2022; Shafiei & Roohi Hadid, 2023). The current findings therefore confirm that pedagogical transformation constitutes a psychological intervention as much as an instructional reform.

The results also emphasized the importance of learner agency and self-directed learning development as dependent yet essential outcomes within the system. Academic buoyancy has consistently been linked to self-regulation, persistence, and motivational engagement (Kord et al., 2023). Empirical studies indicate that students possessing strong self-beliefs and future-oriented academic attitudes demonstrate higher adaptability when facing academic pressures (Mehri et al., 2021). Furthermore, longitudinal research shows that hope and behavioral engagement operate as mediating mechanisms connecting psychological resources to academic achievement (Chen et al., 2020). The present study expands this understanding by situating learner agency within a network of institutional and environmental conditions rather than viewing it solely as an individual trait.

Technological learning environments emerged as linkage variables characterized by simultaneous influence and dependence. This finding reflects the dual nature of technology in education: while digital tools enable innovation and creativity, their effectiveness depends heavily on pedagogical design and psychological readiness. Research examining digital multitasking environments demonstrates that academic performance is moderated by self-efficacy and self-regulated learning capacities (Alghamdi et al., 2020). Similarly, studies linking computer literacy with creativity indicate that technology enhances learning outcomes only when integrated within supportive psychological and instructional frameworks (Yegani et al., 2023). Recent evidence also suggests that academic buoyancy mediates students' emotional responses and self-regulated strategies in technology-rich classrooms (Xu & Wang, 2024). Thus, technology functions less as an independent driver and more as a systemic amplifier of existing educational processes.

The prominence of teacher professional transformation and future-oriented educational governance as linkage factors underscores the institutional dimension of academic buoyancy development. Teachers play a pivotal role in



shaping motivational climates, instructional practices, and psychological safety within classrooms. Studies on emotional intelligence training and self-compassion interventions demonstrate that educator competencies significantly influence students' academic well-being and buoyancy levels (Mozaffarirad et al., 2024). Likewise, strategic foresight research highlights governance structures as key determinants of organizational adaptability and innovation capacity (Shirvani Naghani et al., 2018). Integrating governance with psychological and pedagogical dimensions reflects a shift toward systemic educational reform informed by futures studies methodologies.

The application of foresight analysis represents another major contribution of the study. Futures-oriented thinking emphasizes anticipation, adaptability, and long-term capacity building as essential components of human development (Lombardo, 2019). Scenario-based planning has been widely used to identify drivers shaping complex organizational systems (Goharifar et al., 2015). Structural modeling approaches such as MICMAC enable researchers to distinguish driving variables from dependent outcomes, thereby clarifying intervention priorities (Mousumi & Kahaki, 2017). Similar foresight applications in urban and social planning demonstrate that identifying key drivers enhances strategic decision-making under uncertainty (Alamati et al., 2022). By incorporating foresight into educational psychology, the present research advances a future-sensitive framework for promoting academic buoyancy.

The findings also resonate with motivational and personality-based models explaining adaptive academic functioning. Research integrating grit, mental toughness, and motivational control variables confirms that sustained effort and perseverance significantly predict academic buoyancy (Tammeh et al., 2025). Psychological resource theories further show that growth mindset and emotional intelligence enhance students' ability to reinterpret failure constructively (Liu, 2025). Satisfaction of basic psychological needs and adaptive goal orientations likewise strengthen students' resilience in academic contexts (Khodashahi, 2025). These studies collectively support the present model's emphasis on integrating psychological strengths with systemic educational conditions.

Another important implication concerns the mediating roles of optimism, self-esteem, and love of learning within motivational systems. Prior research demonstrates that academic optimism mediates relationships between hope and academic achievement (Gholamipour et al., 2019).

Similarly, models incorporating self-regulation and self-esteem confirm that psychological strengths buffer negative effects of academic stress and self-handicapping behaviors (Ghadampour et al., 2020). The present findings reinforce these conclusions by illustrating how motivational variables interact with institutional drivers such as assessment and pedagogy to produce sustainable academic vitality.

Overall, the study contributes to the literature by integrating positive psychology, educational innovation, and futures studies into a unified explanatory model of academic buoyancy. Previous research often examined psychological variables independently; however, the current results demonstrate that academic buoyancy emerges from systemic alignment between psychological resources, learning environments, technological infrastructures, and governance strategies. Such integration reflects an evolution in educational research toward complexity-aware and future-oriented paradigms capable of addressing rapidly changing learning contexts.

Despite its contributions, several limitations should be acknowledged. First, the study relied on expert-based structural analysis, which may reflect subjective interpretations shaped by professional perspectives rather than direct behavioral measurement of students. Second, the cross-sectional nature of data collection limits causal inference regarding long-term developmental processes. Third, the study focused on a specific educational context, which may restrict generalizability to other cultural or institutional environments. Additionally, although the foresight approach provides strategic insights, empirical validation of the proposed model through experimental or longitudinal designs remains necessary.

Future studies should test the proposed excellence model using quantitative longitudinal designs to examine causal relationships among psychological, pedagogical, and governance variables over time. Researchers are encouraged to investigate how academic buoyancy evolves across developmental stages and educational levels. Comparative cross-cultural studies could clarify contextual variations influencing model applicability. Integrating artificial intelligence analytics and learning analytics data may also enhance predictive modeling of academic buoyancy. Moreover, future research should explore intervention programs derived from foresight-based educational models to evaluate their effectiveness in real classroom environments.

Educational policymakers should prioritize the development of supportive learning ecosystems that



integrate psychological well-being with instructional innovation. Schools are encouraged to redesign assessment systems toward formative, growth-oriented approaches that promote learner agency. Teacher professional development programs should emphasize emotional competence, future literacy, and adaptive pedagogy. Educational leaders may benefit from adopting foresight and scenario-planning approaches when designing institutional strategies. Finally, integrating technology with pedagogical and psychological principles can help create flexible, learner-centered environments capable of sustaining students' academic vitality and long-term success.

### Authors' Contributions

All authors significantly contributed to this study.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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### Declaration of Interest

The authors report no conflict of interest.

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### Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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