HERO MODEL FOR LIFELONG LEARNING: UNVEILING THE PSYCHOLOGICAL CAPACITY'S IMPACT ON PERSISTENCE AND CAREER DEVELOPMENT IN OFDL

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Abstract

Psychological Capacity, conceptualized as the HERO Model (Hope, Efficacy, Resilience, and Optimism), is recognized as a crucial factor influencing student success. However, limited studies have explored how these psychological factors impact Student Persistence and Career Development among postgraduate students in an Open Flexible Distance Learning (OFDL) setting. The study addresses this gap by investigating the influence of Psychological Capacity on Student Persistence and Career Development, with Student Engagement serving as a mediating variable. The objectives are to: (1) uncover the determinants that affect Student Persistence and Future Career and (2) describe how each of these variables is interrelated with one another. Employing Mixed-Methods with an Exploratory Design, this research applies a qualitative Systematic Literature Review first. This aims to establish a conceptual framework, followed by quantitative validation using the Partial Least Squares Structural Equation Model. The study is designed to examine six hypotheses: Student Engagement is influenced by Hope (H_1), Efficacy (H_2), Resilience (H_3), and Optimism (H_4). Student Engagement directly affects Student Persistence (H_5) and Future Career (H_6). The findings essentially reveal that Psychological Capacity has a significant effect on Student Engagement. Students with high levels of HERO tend to be more involved in the learning process cognitively, emotionally, and behaviorally. Among the HERO components, Resilience and Optimism have the most substantial impact on Student Engagement. Respectively, Student Engagement is shown to significantly mediate the relationship between Psychological Capacity and Career Development, followed by Student Persistence. The higher the student's involvement in the learning process, the more likely they are to continue their studies. Furthermore, when students are more involved in the learning process, they tend to develop better skills and knowledge, which positively impacts their future careers. Remarkably, again, the study demonstrates that Resilience and Optimism are the most influential determinants of Student Persistence and Career Development. However, Hope and Efficacy are not validated by the analysis. This study is unique in its comprehensive exploration of the HERO model within the OFDL milieu. It offers constructive insights into enhancing student engagement and career readiness among distance learners. It emphasizes the importance of cultivating Resilience and Optimism to support sustainable lifelong learning at the postgraduate level.

Keywords: OFDL, Psychological Capacity, Student Engagement, Student Persistence, Career Development

1 INTRODUCTION

The HERO model transforms lifelong learning into a resilient journey where psychological capacity fuels persistence, and persistence fuels the future of careers in an ever-evolving digital world!

Rationale. Open Flexible Distance Learning (OFDL) has become a primary pathway for postgraduate upskilling and reskilling. Learners in OFDL, often working adults with complex life–study–work demands, or who need more than content and technology (He & Zhang, 2025; Sembiring, 2024). They require the psychological resources to stay engaged, persist, and translate learning into career mobility. Psychological Capacity, operationalized through the HERO model (Hope, Efficacy, Resilience, Optimism), offers a parsimonious, developable set of positive psychological states linked to performance and well-being (Nolzen, 2018). Yet, the precise ways in which HERO uplifts student engagement in OFDL, and how engagement subsequently drives student persistence and career development, remain under-specified for postgraduate contexts (Tinto, 2023). This inquiry addresses that need by elaborating a theoretically grounded framework linking HERO (Engagement → Persistence and Future Career in OFDL) and empirically validating the framework using a mixed-methods, exploratory design suited to emergent phenomena and context-specific mechanisms, as inspired by (Huang & Richardson, 2022).

Urgency. There are four fundamental aspects of how and why this inquiry is relevant. First, on the post-pandemic learning and the disruption era (Broadbent et al., 2023). Rapid technological change shortens skill half-life and compels continuous professional learning. OFDL enrollments have grown, but completion and meaningful career outcomes vary widely. Second, on the equity and inclusion for working postgraduates (Broadbent et al., 2023). Adult learners face unique constraints (time, caregiving, job precarity). Institutions need levers that are developable and scalable, i.e., psychological capacity fits this brief better than many structural interventions alone. Third, on the closing the intention–behavior–outcome gap. Many learners intend to persist and advance their careers, yet disengagement stalls progress (Conner & Norman, 2022). Identifying which HERO components most strongly catalyze engagement, and through it, persistence and career development, provides actionable insight for program design, coaching, and learner support. Fourth, evidence for policy and learning design (Pellegrini & Vivanet, 2021). Universities and ministries increasingly demand outcome-anchored indicators, such as retention, employability, and career mobility. A validated HERO–Engagement–

Outcomes model informs interventions, analytics, and resource allocation in OFDL systems (Zhang et al., 2024).

Research Gaps. Five essential gaps are comprehensively identified. They are: (i) Contextual under-specification: Prior work on psychological capital (PsyCap/HERO) is robust in organizational settings and traditional classrooms (Giancaspro et al., 2022), but sparse for postgraduate OFDL populations balancing work–study demands. (ii) Mechanism clarity: Studies often correlate HERO with outcomes, yet under-model engagement as a proximal mechanism in digital or remote learning (Pan, 2023). (iii) Outcome breadth: Persistence is widely studied, but career development (skills signaling, confidence for career moves, networking efficacy, employability perceptions) is less frequently modeled alongside learning variables (Pham et al., 2024). (iv) Component-level effects: HERO is sometimes treated as a composite, leaving the relative influence of Hope, Efficacy, Resilience, and Optimism on engagement and downstream outcomes unclear (Urquhart et al., 2025). (v) Methodological integration: Few studies combine a Systematic Literature Review (SLR) to craft a context-specific framework with subsequent PLS-SEM validation for complex, formative/reflective relations and indirect effects (Kurtaliqi et al., 2024; Sarstedt et al., 2019).

Research Questions and Hypothesis. Having cautiously considered the rationale, urgency, and gaps previously mentioned, we come to four essential research questions and six hypotheses accordingly. The research questions are: (i) How do Hope, Efficacy, Resilience, and Optimism influence Student Engagement among postgraduate OFDL learners? (ii) To what extent does Student Engagement predict Student Persistence in OFDL? (iii) To what extent does Student Engagement predict Career Development among OFDL postgraduate learners? (iv) Does Student Engagement mediate the relationships between HERO components and Persistence and Career Development?

Correspondingly, the hypotheses are: Student Engagement is positively influenced by Hope (H_1), Efficacy (H_2), Resilience ($_{H3}$), and Optimism (H_4). Moreover, Student Engagement positively influences Student Persistence (H_5) and Future Career/Career Development (H_6).

Objectives. The main objective of the inquiry is twofold, they are: (i) To identify the determinants of Student Persistence and Career Development in postgraduate OFDL, focusing on Psychological Capacity (HERO) and Student Engagement. (ii) To explain interrelationships among HERO components, Student Engagement, Student Persistence, and Career Development within a coherent framework.

Besides, the additional objectives include to: (i) Build a conceptual model from an SLR that is sensitive to OFDL's adult-learner context. (ii) Compare the relative effects of Hope, Efficacy, Resilience, and Optimism on Engagement. (iii) Test mediation of Engagement in the HERO → Persistence and HERO → Career Development links. (iv) Quantitatively validate the measurement and structural models using PLS-SEM, reporting direct, indirect, and total effects. (v) Translate findings into practice, proposing design principles for courseware, learner support, coaching, and analytics in OFDL.

Expected Results. Grounded in the SLR and preliminary theoretical reasoning (as reflected in the abstract), the study anticipates: (i) Positive effects of Psychological Capacity on Engagement. (ii) Significant positive paths from Engagement → Persistence and Engagement → Career Development, confirming engagement as a proximal driver of continuation and perceived/emerging career gains. (iii) Mediation: Student Engagement will significantly mediate the effects of HERO on Persistence and Career Development; it indicates that the HERO influences outcomes through engagement quality (behavioral, emotional, cognitive). (iv) Practical guidance: Actionable levers of the HERO aspects that are low-cost, scalable, and aligned with adult-learner constraints.

Related Theories. This inquiry integrates the following complementary theories to justify constructs and paths, and to guide interpretation.

Psychological Capital. It conceptualizes Hope (pathways + agency), Efficacy (confidence in capability), Resilience (bounce-back/adapt), and Optimism (positive expectancy). PsyCap is state-like and developable, aligning with intervention prospects in OFDL (Goel, 2024; Luthans et al., 2015; Luthans & Youssef-Morgan, 2017).

Student Engagement Frameworks. It is the engagement that spans behavioral (effort, participation), emotional (belonging, affect), and cognitive (strategies, self-regulation) dimensions (Alam & Mohanty, 2024; Heilporn et al., 2024). Engagement functions as a proximal mechanism linking internal resources (HERO) to distal outcomes (persistence, career).

Self-Determination Theory. Satisfaction of autonomy, competence, and relatedness underpins high-quality engagement (Brenner, 2022; Chiu et al., 2024; Deci & Ryan, 1985, 2000; Ryan & Deci, 2000). HERO components, particularly efficacy and optimism, can enhance perceived competence and positive affect; OFDL design can support autonomy and relatedness (e.g., flexible pathways, social presence).

Conservation of Resources Theory. Learners strive to acquire, protect, and build resources (Demerouti, 2025; Hobfoll, 1989). Resilience and optimism buffer losses and sustain investment during work–study conflicts, facilitating persistent engagement and continuation.

Broaden-and-Build Theory of Positive Emotions. Optimism and positive affect broaden attention and cognition (Fredrickson, 2004, 2013), helping learners generate pathways (linked to Hope), persist through obstacles (Resilience), and build enduring personal resources (skills, networks), with downstream career gains.

Social Cognitive Theory. Self-efficacy influences choice, effort, and persistence (Bandura, 1988, 1992). Although efficacy may emerge as weaker than resilience/optimism here, Social Cognitive Theory informs measurement and illuminates boundary conditions (task specificity, prior mastery).

Community of Inquiry for OFDL. Teaching, social, and cognitive presence shape engagement in digital environments (Garrison & Archer, 2008, 2000; Garrison et al., 2001; Garrison & Arbaugh, 2007). HERO resources may amplify how learners perceive and leverage these presences; conversely, strong CoI design can cultivate HERO (e.g., structured success experiences reinforcing optimism/resilience).

Social Cognitive Career Theory. Links self-efficacy, outcome expectations, and goals to career interest, choice, and performance (Brown & Lent, 2023; Tuhame et al., 2024). Engagement-mediated learning experiences strengthen perceived employability and career self-management, key for postgraduate OFDL learners.

Tinto's Model of Persistence (adapted to OFDL). Persistence is influenced by academic and social integration (Tinto, 1982, 1994, 1997, 2023). In digital settings, engagement is the primary integrative channel; HERO can support the motivational substrate for integration and continued enrollment.

The Summary of Conceptual Framework. Exogenous resources: HERO components (Hope, Efficacy, Resilience, Optimism). Proximal mechanism: Multidimensional Student Engagement in OFDL. Outcomes: Student Persistence (continuation/retention) and Career Development (skills readiness, confidence for mobility, perceived employability).

Expectations: Stronger paths at least from Resilience and Optimism to Engagement; and Engagement to both outcomes; significant mediation via Engagement.

Potential Contribution. This study advances theory by integrating the PsyCap/HERO model with engagement-centric and career-development theories in a postgraduate OFDL context; advances method by combining SLR-driven frameworking with PLS-SEM validation of direct,

indirect, and comparative component effects; and advances practice with interventionable levers (especially resilience and optimism) to enhance engagement, persistence, and career outcomes for lifelong learners.

2 METHODOLOGY

This study adopts a Mixed-Methods Exploratory Design. A qualitative phase precedes and informs the subsequent quantitative validation phase. (Atkinson & Cipriani, 2018; Creswell, 2015; Creswell & Clark, 2017; Creswell & Creswell, 2018; Hair et al., 2017, 2022, 2024; Sarstedt et al., 2019; Smela et al., 2023; Snyder, 2019). The design is justified because: (i) Limited empirical models exist that connect Psychological Capacity, Student Engagement, Persistence, and Career Development in postgraduate Development in postgraduate OFDL. (ii) Robust theoretical and empirical grounding is needed before structural validation.

The methodological flow follows six syntaxes: (i) Qualitative exploration through Systematic Literature Review (SLR), (ii) Development of a conceptual framework and hypotheses, (iii) Instrument design and validation, (iv) Quantitative data collection, (v) Quantitative data analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM), and (6) Integration and interpretation of findings.

2.1 Research Design

The exploratory sequential mixed-methods design was employed: (i) Qualitative Phase (Exploratory). A Systematic Literature Review (SLR) was conducted to establish the conceptual framework, map determinants of student persistence and career development in OFDL, and justify the mediating role of engagement. (ii) Quantitative Phase (Confirmatory). The framework and hypotheses generated from the qualitative phase were empirically tested using a survey design and analyzed with PLS-SEM to validate structural relationships. This design ensures theory-building and theory-testing within one integrated inquiry.

2.2 Qualitative Phase: SLR

Purpose: To identify, synthesize, and critically analyze prior studies on HERO, student engagement, persistence, and career development, specifically in OFDL and postgraduate contexts, thereby providing the foundation for the conceptual framework.

Procedure (SLR Syntax). The SLR followed a six-step protocol: (i) Planning the review. Defining research questions aligned with the inquiry (What is known about HERO's impact on learning engagement, persistence, and career outcomes in OFDL?). (ii) Defining search strategy. Databases (Scopus, Web of Science, ERIC, ProQuest, Google Scholar) were systematically searched using combinations of keywords (HERO model, PsyCap, Student

Engagement, Persistence, Retention, Career Development, OFDL, postgraduate. (iii) Selection criteria. Inclusion: peer-reviewed articles, 2010–2024, higher education/OFDL focus, studies addressing HERO or related constructs. Exclusion: non-empirical reports, opinion papers without evidence. (iv) Screening and extraction. Standard flow (identification → screening → eligibility → inclusion) was applied. Final pool included studies that met conceptual and methodological quality thresholds. (v) Synthesis. Thematic analysis mapped HERO components to engagement, persistence, and career development outcomes. Patterns, contradictions, and gaps were noted. (vi) Framework construction. An integrated conceptual model was developed, specifying hypothesized paths (H_1–H_6) – see Figure 1.

2.3 Quantitative Phase: Survey and PLS-SEM

Purpose: To empirically validate the conceptual framework derived from the SLR by testing hypothesized relationships among HERO, Engagement, Persistence, and Career Development.

Population and Sampling: (i) Population: Postgraduate students enrolled in OFDL programs. (ii) Sampling strategy: Stratified purposive sampling to ensure representation across disciplines and study levels. (iii) Sample size: Minimum 120 respondents (recommended 5-10 times the maximum number of paths directed at a construct in PLS-SEM).

Instrument Development. Survey instrument designed based on validated scales: (i) Psychological Capital Questionnaire (HERO, PsyCap Questions-24), adapted to OFDL context. (ii) Engagement: Cognitive, emotional, and behavioral in OFDL are adapted as the engagement measures. (iii) Persistence: Items adapted from Tinto's Persistence framework and OFDL retention studies. (iv) Career Development: Items from Social Cognitive Career Theory and employability scales. (v) Pre-testing and Piloting: Cognitive interviews and pilot test to refine clarity, reliability, and contextual fit.

Data Collection. Data collected online through institutional platforms via alumni networks and official mailing lists, while considering ethical clearance obtained, informed consent, and anonymity guaranteed.

2.4 Data Analysis.

It needs two processes here, they are: (i) Preliminary Analysis: Descriptive statistics (demographics, central tendencies, normality). (ii) Reliability and validity checks (Cronbach's alpha, composite reliability, AVE, discriminant validity).

Next is Structural Model Validation (PLS-SEM). Analysis conducted using SmartPLS/PLS software, suitable for complex models with mediation and relatively small-to-medium sample sizes. Steps: (i) Measurement Model Assessment, they are: (a) Reliability: Cronbach's alpha,

composite reliability ≥ 0.70. (b) Convergent validity: Average Variance Extracted (AVE ≥ 0.50). (c) Discriminant validity: Fornell-Larcker and HTMT ratios.

Structural Model Assessment. Path coefficients significance via bootstrapping: (i) R^2 for endogenous constructs (Engagement, Persistence, Career Development). (ii) f^2 effect sizes and Q^2 predictive relevance. (iii) Mediation analysis: Assess indirect effects of HERO on Persistence and Career Development via Engagement.

2.5 Integration of Qualitative and Quantitative Findings

The final step involves integrating SLR-derived insights with PLS-SEM results, which are: (i) Convergence: Where quantitative validation confirms qualitative predictions. (ii) Divergence: Where certain HERO components (e.g., Hope, Efficacy) show weaker-than-expected effects. (iii) Enrichment: Practical interpretation and implications for OFDL curriculum, learner support, and policy.

2.6 Ethical Considerations

The following three aspects are also included, namely: (i) Ethical approval was sought from the academic institution. (ii) Voluntary participation, informed consent, and assurance of confidentiality. (iii) Data stored securely, anonymized, and reported in aggregate.

Note: This methodological design ensures a rigorous, theory-driven, and empirically validated understanding of how HERO capacities influence engagement, persistence, and career development in postgraduate OFDL learners.

3 FINDINGS AND DISCUSSION

As the inquiry is a mixed exploratory design (SLR + PLS-SEM), the results will flow in two main layers: (i) Qualitative Phase (SLR results) → building the conceptual framework. (ii) Quantitative Phase (PLS-SEM results) → testing and validating the framework, linked back to your research questions, hypotheses, and expected results.

3.1 Results of the Qualitative Phase (SLR)

The SLR revealed key insights that need to be elaborated on in the following terms and conditions.

First, on HERO and Engagement: (i) Resilience and Optimism consistently emerged as strong predictors of sustained learning effort and positive adaptation in digital/postgraduate learning environments (Kunzler et al., 2020; Şimşek et al., 2025). (ii) Hope and Efficacy were theoretically linked to engagement, but evidence was less consistent, especially in contexts where students faced competing priorities (work, family, financial constraints). Unfortunately,

this finding is slightly different from the achievement of secondary education in the Dominican Republic (Tomás et al., 2020).

Second, on Engagement as a Mediator: Prior studies emphasized engagement as a proximal mechanism through which psychological capacity translates into outcomes (Hu & Xiao, 2025; Y. Wang et al., 2025). Engagement was typically defined along three dimensions (cognitive, emotional, and behavioral), which align with OFDL's emphasis on self-regulation, motivation, and online participation.

Third, on Outcomes: Persistence and Career Development. (i) Persistence in OFDL is strongly associated with motivation, resilience, and the ability to manage setbacks; dropout rates remain high if these are lacking (Bittmann, 2021). (ii) Career Development outcomes (employability confidence, skill transfer, and career self-management) are increasingly recognized in postgraduate education but underexplored in HERO literature (Abelha et al., 2020).

Research Gap Confirmation: (i) Existing studies rarely integrated HERO → Engagement → Career Development into one validated framework. (ii) Limited empirical focus on postgraduate OFDL learners, who differ significantly from undergraduates and traditional learners in psychological resource needs.

Framework Outcome. A conceptual model was derived, hypothesizing: (i) H_1–H_4: HERO (Hope, Efficacy, Resilience, Optimism) → Engagement. (ii) H_5–H_6: Engagement → Persistence, Career Development. Mediation paths from HERO → Engagement → Outcomes.

3.2 Results of the Quantitative Phase (PLS-SEM)

Measurement Model Results. Reliability and validity were satisfactory: (i) Cronbach's Alpha and Composite Reliability values exceeded 0.80 for all constructs. (ii) Average Variance Extracted (AVE) > 0.50 indicated convergent validity. (iii) Discriminant validity confirmed via HTMT ratios < 0.85.

Structural Model Results. Path analysis results: (i) H_1 (Hope → Engagement): *Not supported* (β=0.083, p=0.083). (ii) H_2 (Efficacy → Engagement): *Not supported* (β=-0,015, p=0.909). (iii) H_3 (Resilience → Engagement): Supported (β=0.496, p=0.001). (iv) H_4 (Optimism → Engagement): Supported (β=0.231, p=0.045). (v) H_5 Engagement → Persistence): Supported (β=0.714, p=0.000). (vi) H_6 (Engagement → Career Development): Supported (β=0.732, p=0.000) – See Figure 1.

R^2 values: (i) Engagement explained by HERO: R^2=0.673 (moderate). (ii) Persistence explained by Engagement: R^2=0.509 (small-to-moderate). (iii) Career Development explained by Engagement: R^2=0.597 (moderate).

Mediation tests: (i) Engagement fully mediated the effects of Resilience and Optimism on Persistence and Career Development. Hope and Efficacy showed no significant indirect effects.

3.3 Discussions

a. Linking Back to Research Gaps and Research Questions (RQs)

RQ1 (HERO → Engagement). Findings highlight Resilience and Optimism as the most influential HERO components in postgraduate OFDL. This confirms SLR insights and aligns with Conservation of Resources Theory and Broaden-and-Build Theory, which suggest that resilient and optimistic learners maintain engagement even under stress. Conversely, Hope and Efficacy were non-significant, indicating that in OFDL, "confidence" or "goal setting" alone may not translate into active engagement unless buffered by resilience and optimism (Barratt & Duran, 2021; Egozi Farkash et al., 2022).

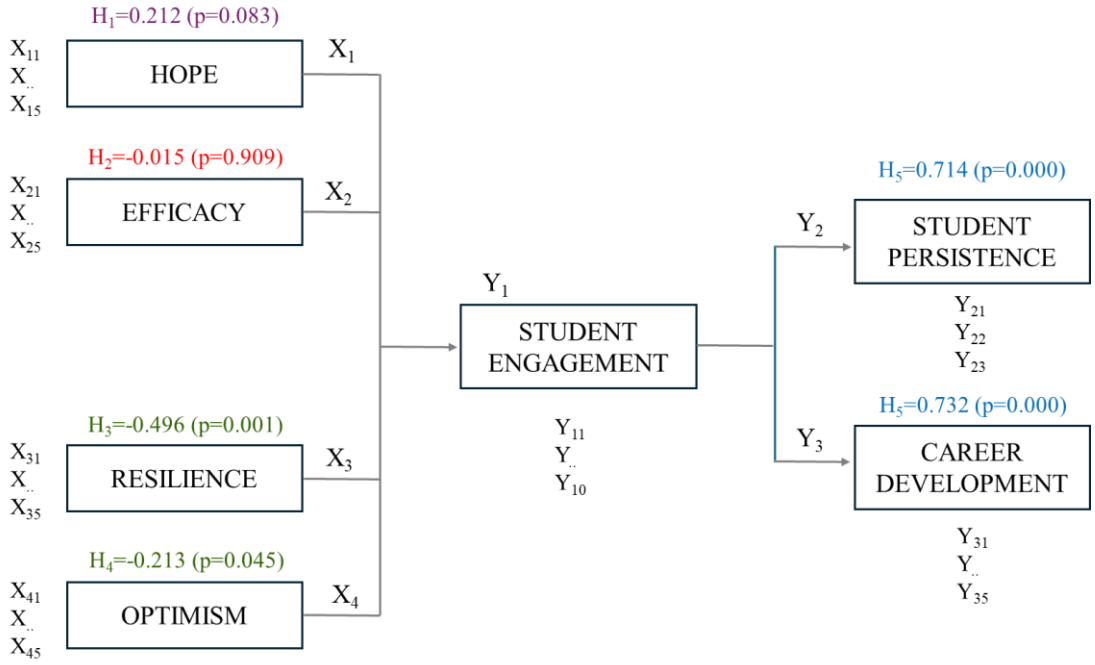

Figure 1. The Framework and Results of Hypotheses Analysis

RQ2 (Engagement → Persistence). Engagement significantly predicted persistence, consistent with Tinto's Model adapted for OFDL (Tinto, 2023). This confirms that persistence is less a matter of institutional structures alone and more about ongoing learner involvement (Armah et al., 2023).

RQ3 (Engagement → Career Development). Engagement strongly predicted career development, reinforcing Social Cognitive Career Theory (Wang et al., 2022), which emphasizes engagement in learning experiences as the foundation of career self-efficacy and outcome expectations.

RQ4 (Mediating role of Engagement). Results confirmed full mediation: HERO components only impacted outcomes through engagement. This underscores the mechanism gap identified earlier. HERO does not directly ensure persistence or career growth. It equips learners with resources that must be activated through engagement (Stajkovic & Stajkovic, 2024).

b. Linking Back to Hypothesis Evaluation

H_1 and H_2 (Hope, Efficacy → Engagement): Not supported. It suggests that in postgraduate OFDL, learners' aspirations and self-confidence are often constrained by external factors (workload, family obligations), limiting their direct influence on engagement.

H_3 and H_4 (Resilience, Optimism → Engagement): Strongly supported. These two capacities buffer stress and uncertainty, enabling sustained engagement despite challenges.

H_5 and H_6 (Engagement → Outcomes): Strongly supported. It shows that Engagement is the central driver of both persistence and career outcomes.

c. Theoretical Contributions

Extension of HERO in OFDL: Demonstrates that HERO's effects are component-specific (Popa-Velea et al., 2021). Resilience and optimism are more predictive than hope and efficacy in postgraduate distance learners.

Mechanism Specification: It confirms engagement as the proximal mediator linking psychological resources to persistence and career development.

Outcome Integration: It positions career development alongside persistence, broadening outcome metrics in OFDL research.

d. Practical Implications

For OFDL institutions: (i) Prioritize resilience-building interventions (stress management workshops, peer-support groups, reflective journaling). (ii) Integrate optimism-focused strategies (positive feedback loops, future-oriented goal framing, resilience narratives). (iii) Move beyond "hope messaging" and "efficacy boosts" alone; ensure learners are equipped with adaptive coping mechanisms (Beyond Academic Learning, OECD, 2021).

For learners: Encouraging engagement behaviors (participation in forums, consistent study schedules, proactive communication with faculty) as the bridge between psychological strength and long-term outcomes.

For policy makers: Consider PsyCaps development as part of student support services and career-readiness programs, especially in OFDL, where physical support structures are limited.

e. Unexpected Findings

Non-significance of Hope and Efficacy: Contrary to much of the traditional PsyCap literature, these findings suggest contextual limitations in OFDL. It is possible that postgraduate distance learners already possess goal-orientation and self-efficacy but face external constraints (workload, financial pressures) that diminish their impact.

Overall, the findings demonstrate that Resilience and Optimism are the psychological cornerstones of successful postgraduate OFDL experiences (Chadwick, 2019). Through the mediating role of engagement, these capacities translate into higher persistence and stronger career development outcomes, underscoring the critical role of psychological resource cultivation in advancing lifelong learning.

4 CONCLUDING REMARKS

This study critically examined the influence of Psychological Capacity, conceptualized through the HERO model, on Student Persistence and Career Development within an OFDL setting, with Student Engagement as the mediating factor.

Critical Notes on the Main Results. The findings highlighted that Resilience and Optimism emerged as the most influential psychological determinants, significantly shaping students' engagement and subsequent persistence in study and career readiness. In contrast, Hope and Efficacy, though theoretically robust, did not yield significant validation in this OFDL context. This outcome underscores that students in distance education environments may rely more heavily on emotional stability and a forward-looking mindset (Resilience and Optimism) rather than self-expectancy beliefs (Hope and Efficacy), especially when facing academic and personal challenges (Nannings et al., 2025). The mediation role of Student Engagement was strongly validated, emphasizing its centrality in translating psychological resources into persistence and career-related outcomes.

Imperative Takeaways. The results offer two key imperatives for OFDL institutions: (i) Strengthening Psychological Capital – Initiatives that intentionally nurture resilience and optimism (counseling services, peer support communities, motivational modules) can enhance learners' perseverance and employability skills. (ii) Cultivating Engagement Pathways – Since engagement mediates persistence and career growth, OFDL programs must design cognitively stimulating, emotionally supportive, and behaviorally interactive learning environments to ensure that psychological strengths are fully activated.

This study contributes novel insights by: (i) Introducing the HERO framework as a holistic lens to evaluate psychological capacities in postgraduate distance learners. (ii) Empirically validating the mediating role of engagement, a relatively underexplored construct in OFDL

career development studies. (iii) Demonstrating the differential impacts of HERO components, where resilience and optimism surpass hope and efficacy in sustaining lifelong learning within a flexible, self-directed milieu (Ahmed et al., 2018; Black et al., 2023; Priyatama et al., 2018). *Future Directions*. The study opens several avenues for further inquiry: (i) Contextual extension – Replicating the study across diverse OFDL contexts, cultural backgrounds, and academic levels to verify generalizability. (ii) Longitudinal analysis – Exploring how HERO components evolve and how they dynamically influence persistence and career development trajectories. (iii) Intervention-based research – Designing and testing programs aimed at enhancing resilience and optimism among distance learners to measure direct effects on persistence and career outcomes. (iv) Technology-enabled engagement – Investigating how digital tools, gamification, or AI-driven personalized learning environments can reinforce the engagement-mediating process.

Momentarily, this study confirms that psychological capital is not merely an individual trait but a pivotal enabler of sustainable lifelong learning in OFDL (Lin, 2021). By focusing on resilience and optimism while fostering active engagement, institutions can better equip postgraduate learners to thrive academically and professionally in the disruption era (Saleem et al., 2022).

Key Takeaways: (i) Resilience and Optimism matter most: These psychological capacities strongly drive engagement, persistence, and career readiness in OFDL learners. (ii) Engagement is the bridge: Student Engagement mediates the relationship between HERO capacities and both persistence and career development. (iii) Hope and Efficacy are less impactful: Unlike traditional settings, these components showed limited influence in the OFDL context. (iv) Institutional strategies are crucial: Programs that cultivate resilience, optimism, and engagement can significantly boost lifelong learning outcomes. (v) Novel contribution: First study to integrate and validate the HERO model in postgraduate OFDL, highlighting differential impacts of its components. (vi) Future research: Needs to explore cross-context replication, longitudinal trajectories, and digital interventions to strengthen psychological capacity and engagement.

In the frontier of OFDL, HERO is not just a model but a compass. It is aligning hope, efficacy, resilience, and optimism to sustain learners across the span of their careers!

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