

Adaptive-Psychological Learning Framework: Redefining Human Nature and Methodology in the Digital Era

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ABSTRACT

The growing digitalization of education has accelerated the mechanization of learning, frequently marginalizing the psychological dimensions of human nature. Prevailing methodologies prioritize narrow cognitive outcomes while neglecting autonomy, affective engagement, and the social essence of learners, resulting in diminished meaning and learner well-being. This study critically analyzes the philosophical and practical implications of human nature—as conceptualized in behaviorism, cognitivism, and humanistic psychology—for the transformation of learning methodologies in contemporary educational contexts. A qualitative library research design was employed, drawing on systematic searches of Scopus, ScienceDirect, and Google Scholar. Content analysis and thematic synthesis were applied to 28 peer-reviewed sources published between 2000 and 2023, with theoretical triangulation used to ensure rigor. Three complementary psychological pillars were identified: behaviorism's contribution to structured feedback, cognitivism's emphasis on scaffolded mental construction, and humanism's prioritization of autonomy and self-actualization. Synthesis of these pillars yields an Adaptive-Psychological Methodology (APM) framework. Additionally, the concept of Digital Humanism is proposed, repositioning technology as an amplifier of human agency rather than a substitute for it. Student psychological well-being is argued to constitute a primary indicator of educational success, superseding exclusive reliance on cognitive achievement metrics. Meaningful educational transformation requires a paradigm shift from mechanistic, teacher-centered instruction toward human-centered, facilitative methodologies grounded in psychological science. The three-stage Reorientation–Reconstruction–Resonance (3R) strategic framework is offered as a practical guide for educators, curriculum designers, and policymakers.

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1. INTRODUCTION

Education, in its most fundamental sense, is not a mere transfer of information but a systematic endeavor to humanize human beings (Babayeva, 2025; Biesta, 2015). Yet

this aspiration cannot be achieved without a rigorous understanding of human nature itself (Deng, 2021). Within psychological discourse, the human being is understood not as a static object of instruction, but as a dynamic entity constituted by interacting with cognitive, affective, and conative dimensions (Mar'ah & Ar-Romli, 2025). When these dimensions are overlooked or inadequately theorized by educators, learning methodologies become misaligned with the very subjects they are designed to serve.

Historically, divergent constructions of human nature have generated competing schools of thought in psychology, each with distinct methodological prescriptions. Behaviorism, as systematized by Skinner, posits a reactive model of humanity in which behavior is entirely shaped by environmental contingencies and reinforcement schedules (Leeder, 2022). This ontological commitment produced highly structured, output-measurable instructional models that, while scalable, risk reducing learners to passive recipients of stimuli. Cognitivism, advanced by Piaget and Vygotsky, reframes the human being as an active processor of information who constructs knowledge through social interaction and internal mental schemata (Colelli, 2025; Singer, 2022). However, both paradigms have been critiqued for their incomplete treatment of existential dimensions of human experience: freedom, intentionality, and the pursuit of meaning.

Contemporary education stands at a critical juncture. The proliferation of digital technology and artificial intelligence has introduced unprecedented instructional efficiencies while simultaneously raising concerns about the erosion of education's humanistic core (George-Reyes et al., 2026; Selwyn, 2024). There is a discernible tendency toward the technocratization of learning, wherein students are reduced to data-producing units and pedagogical success is equated with the velocity of information throughput (Peters, 2020; Ramsey et al., 2025). Psychological capacities such as empathy, intuition, creative synthesis, and moral reflection—qualities intrinsic to human nature—are routinely marginalized in such frameworks.

Humanistic psychology, as articulated by Maslow and Rogers, offers a conceptually rich counterpoint to this tendency (Henry, 2017; Mruk & Skelly, 2017). This tradition posits that human beings possess an intrinsic motivational orientation toward self-actualization and that authentic learning occurs when the educational environment respects and cultivates this orientation. Complementing this view, positive psychology—advanced by Seligman (2019) and operationalized through self-determination theory Deci and Ryan (Brenner, 2022)—extends the framework by foregrounding psychological strengths, well-being, and the construct of “flow” as valid indicators of educational efficacy.

Despite the theoretical robustness of these perspectives, their systematic integration into learning methodology design remains limited. Practical barriers—including overcrowded curricula, the hegemony of standardized assessment, and teachers' administrative burdens—perpetuate conventional, one-directional instructional approaches (Wang & Degol, 2016). This gap between psychological theory and pedagogical practice represents a significant problem, particularly as the post-pandemic

era demands educational models that are simultaneously adaptive, technologically fluent, and humanistically grounded (Li & Wong, 2025).

The present study addresses this gap by synthesizing insights from behaviorism, cognitivism, and humanistic psychology to construct an integrative adaptive-psychological methodology (APM) framework. The framework's novelty resides in three contributions: (1) the theoretical articulation of digital humanism as a design principle for technology integration, (2) the repositioning of psychological well-being as a primary, rather than secondary, indicator of educational success, and (3) the development of a three-stage strategic framework—reorientation, reconstruction, and resonance—for operationalizing the APM in practice. These contributions directly respond to the growing body of literature calling for post-pandemic educational transformation that preserves human identity amid technological disruption (Marginson, 2018). This study is guided by two questions: (1) How do behaviorist, cognitivist, and humanistic conceptualizations of human nature differentially imply transformations in learning methodology? (2) What integrative framework can synthesize these implications to guide humanistic, adaptive methodological transformation in digital educational contexts?

2. METHOD

This study employed a qualitative library research design using descriptive-analytical synthesis. This approach is appropriate for constructing and evaluating conceptual frameworks derived from theoretical literature, particularly when the aim is to identify patterns, tensions, and convergences across psychological schools of thought rather than to test hypotheses with empirical data. The methodology aligns with systematic review conventions while acknowledging its scope within the domain of educational philosophy and theory.

Primary sources comprise foundational works by seminal theorists that directly constitute the psychological and philosophical backbone of the analysis. Secondary sources consisted of peer-reviewed journal articles, conference proceedings, and scholarly monographs retrieved from Scopus, ScienceDirect, and Google Scholar. The search utilized Boolean queries combining the terms: “human nature in psychology” AND “learning methodology”; “human nature” AND “educational transformation”; “digital humanism” AND “education”; and “psychological well-being” AND “pedagogy.”

Literature was retained for analysis if it met the following inclusion criteria: (a) peer-reviewed publication in a recognized academic outlet; (b) direct relevance to one or more of the three psychological schools examined; (c) engagement with the intersection of psychology and educational methodology; and (d) publication between 2000 and 2023 (with pre-2000 foundational texts exempted). Sources were excluded if they focused exclusively on non-educational psychological interventions or lacked sufficient engagement with methodological implications.

Content analysis and thematic synthesis were employed as primary analytical strategies. In the first stage, data reduction, the literature was classified according to

psychological perspective (behaviorist, cognitivist, humanistic), methodological implication (structural, cognitive, facilitative), and thematic domain (digital integration, well-being, autonomy, social learning). In the second stage, thematic synthesis, cross-cutting themes were identified and abstracted into the APM framework. In the third stage, critical appraisal, theoretical triangulation was used to cross-validate claims across divergent psychological traditions and reduce interpretive bias. The analytical process concluded with the construction of practical recommendations for educators and researchers.

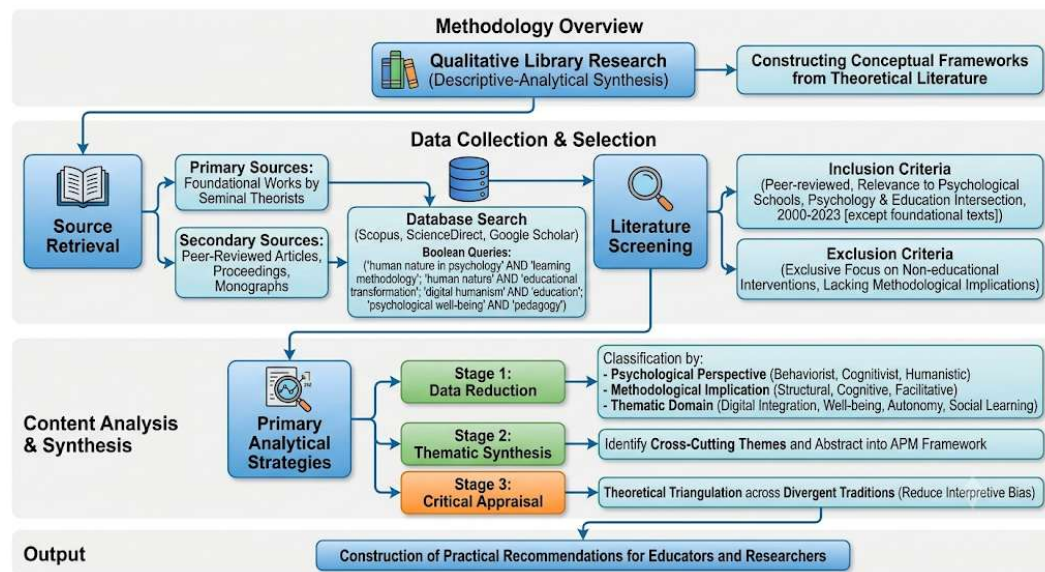


Figure 1. Research Framework Flow

3. RESULTS AND DISCUSSION

Results

Deconstruction of Human Nature Across Three Psychological Schools

Thematic analysis of the literature revealed three distinct, yet complementary, constructions of human nature, each with specific and substantive implications for learning methodology. Table 1 provides a comparative synthesis of these findings.

Table 1. Comparative synthesis of psychological perspectives and their implications for learning methodology

Psychological Perspective	Ontology of the Learner	Methodological Implications	Key Risks	Representative Sources
Behaviorism	Reactive entity shaped by environmental contingencies	Highly structured, feedback-intensive, outcome-measurable instructional systems	Mechanization of learning; erosion of learner autonomy	Deng (2021)
Cognitivism	Active information processor; social	Scaffolded learning, metacognitive strategy training,	Underestimation of affective and motivational dimensions	Garnham (2019)

Psychological Perspective	Ontology of the Learner	Methodological Implications	Key Risks	Representative Sources
Humanistic Psychology	knowledge constructor Autonomous subject oriented toward self-actualization and meaning	collaborative problem-solving Student-centered, facilitative process; prioritizes psychological safety and academic freedom	Insufficient structure in skill-dependent domains	Deng (2021) Elkins (2022) Wong (2017)

The behaviorist construction of the learner as a reactive entity produced methodologies characterized by operant conditioning cycles, immediate corrective feedback, and quantifiable performance benchmarks. This paradigm delivered scalable instructional structures but carried the inherent risk of creating what Ramsey describes as “learning mechanization”: environments in which students are incentivized to perform for external rewards—whether grades or gamification points—rather than for intrinsically meaningful goals.

Cognitivism’s reconceptualization of the learner as an active processor fundamentally redirected methodological attention from behavioral outputs to internal mental structures. Key implications include the design of scaffolded instructional sequences aligned with Vygotsky’s Zone of Proximal Development, the cultivation of metacognitive awareness, and the creation of collaborative social environments that challenge and expand learners’ cognitive schemata foreground the enactive dimension of cognition, arguing that knowing is constitutively relational—a finding with direct implications for instructional design.

Humanistic psychology’s framing of the learner as an autonomous subject in pursuit of meaning and self-actualization most radically reorients methodological priorities. Here, the primary task of the educator is not instruction but facilitation: creating conditions in which learners can safely explore their own potential, exercise self-directed inquiry, and experience learning as existentially significant. Self-Determination Theory Deci and Ryan operationalize this insight by identifying three fundamental psychological needs—autonomy, competence, and relatedness—whose satisfaction is empirically associated with sustained intrinsic motivation and well-being.

The Adaptive-Psychological Methodology (APM) Framework

Synthesis of the three perspectives yielded the Adaptive-Psychological Methodology (APM) framework, which integrates the structural clarity of behaviorism, the scaffolded complexity of cognitivism, and the facilitative orientation of humanism into a coherent methodological architecture. The APM is founded on two core propositions: (a) that effective learning occurs when methodological design aligns with learners’ psychological needs across cognitive, affective, and social dimensions; and (b) that adaptation—rather than standardization—is the appropriate response to human psychological diversity.

Research findings confirm that methodology effectiveness is substantially determined by its capacity to satisfy the three basic psychological needs identified by Self-Determination Theory. When instructional designs offer learners meaningful control over the pace, sequence, and content of their learning (autonomy), situate challenges within achievable ranges that promote the experience of competence (competence), and create collaborative social environments (relatedness), intrinsic motivation is significantly enhanced compared with conventional instructional models. The APM thus operationalizes these theoretical propositions into actionable design principles.

Digital Humanism as a Foundational Principle

A particularly salient finding concerns the implications of artificial intelligence integration for educational methodology. The analysis identified an urgent need for the conceptual reorientation of technology's role in education—from instrumental efficiency enhancer to facilitator of distinctively human capacities. This study proposes the concept of Digital Humanism to capture this reorientation, articulating three interdependent principles:

- **Technology as Facilitator of Human Values:** Digital tools should serve as catalysts for ethical reasoning, social responsibility, and reflective practice, rather than substitutes for human judgment.
- **Higher-Order Thinking as Core Competency:** As AI assumes responsibility for routine data processing, methodologies must prioritize synthesis, creative decision-making, and critical evaluation—competencies that constitute the exclusive province of human cognition.
- **Digital Empathy as a Relational Skill:** The maintenance of authentic interpersonal relationships in digitally mediated learning environments requires the deliberate cultivation of digital empathy as a methodological objective.

Taken together, these principles position Digital Humanism as a filter through which technology adoption decisions in educational contexts should be evaluated: not “what can this technology do?” but “does this technology strengthen or diminish the humanity of learners?”

Psychological Well-Being as a Success Indicator

A further critical finding concerns the reconceptualization of educational success metrics. Literature consistently supports the inadequacy of cognitive achievement alone as a measure of methodological effectiveness. Methodologies that impose excessive competitive pressure, disregard emotional safety, or prioritize standardized outputs have been shown to increase student burnout, reduce creative engagement, and damage intrinsic motivation over time.

This study finds that Differentiated Learning represents a methodological strategy that simultaneously addresses psychological diversity and operationalizes well-being as a pedagogical value. By tailoring instructional content, process, and product to individual learners' profiles, Differentiated Learning enacts the humanistic recognition

that each learner is a unique subject—not an aggregate data point—deserving of individualized support and challenge. Educational institutions that integrate well-being assessment into their evaluation frameworks are better positioned to build the resilience, creativity, and sustained motivation that constitute genuine human flourishing.

Discussion

Dialectics Among Psychological Schools: From Tension to Integration

The dialectical relationship among behaviorism, cognitivism, and humanism has historically been framed as a succession of paradigms, each displacing its predecessor. The present analysis challenges this narrative by demonstrating that these perspectives are more productively understood as complementary rather than competing constructions of human nature. Methodological failure frequently results from the dogmatic adoption of a single paradigm—most notably the unreflective application of behaviorist principles in digital learning environments, which risks producing what Ramsey et al. (2025) aptly terms a “digital prison” of extrinsic incentives.

The integration of Vygotskian scaffolding within the APM framework addresses the cognitivist insight that humans are constitutively social and that learning is maximally effective when situated at the productive boundary of learners’ current and proximal capabilities (Riva, 2025). Crucially, however, cognitive efficiency alone is insufficient: learners who are cognitively challenged but existentially constrained—denied autonomy, subjected to psychological threat, or stripped of meaningful agency—are unlikely to achieve the deep, transferable learning that education aspires to produce (Iman et al., 2023; Yan et al., 2024). The APM’s integrative architecture is designed precisely to bridge this gap.

Digital Humanism: Reconceptualizing the Technology-Pedagogy Relationship

The findings of this study contribute to an emerging literature on the ethical and pedagogical dimensions of technology integration in education (Peters, 2020; Selwyn, 2024). The concept of Digital Humanism articulated here extends beyond existing frameworks by grounding technological adoption decisions in a robust philosophical account of human nature. Where existing discourse tends to treat technology as pedagogically neutral—evaluating it solely on efficiency or accessibility grounds—Digital Humanism insists on a normative criterion: technology is educationally appropriate to the extent that it amplifies rather than diminishes the distinctively human capacities of learners (Díaz de la Cruz et al., 2025; Toktas, 2025).

In practical terms, this reframing transforms the role of the educator from “information conveyor” to “curator of human experience”. As AI systems become capable of sophisticated data analysis and adaptive content delivery, the distinctive contribution of human educators lies precisely in their capacity to model empathy, ethical reasoning, and the reflective integration of experience—competencies that cannot be replicated algorithmically (Chan & Tsi, 2023; Ng et al., 2023). This finding has significant implications for teacher training programs, which must develop

educators' capacity for facilitative, dialogical, and reflective pedagogy alongside their technological competencies.

Psychological Well-Being as Pedagogical Foundation: Implications for Assessment

The repositioning of psychological well-being as a primary indicator of educational success represents a significant theoretical contribution with substantive practical implications. Self-Determination Theory's empirically grounded account of basic psychological needs Deci and Ryan provides both a theoretical warrant and an operational vocabulary for this reframing (Battaglio et al., 2022; Ryan & Deci, 2021; Ryan & Deci, 2024). Educational systems that maintain exclusive reliance on cognitive achievement metrics not only risk overlooking the psychological conditions necessary for sustained learning but may actively undermine them through the imposition of competitive, anxiety-generating assessment regimes (Dadandi & Yazıcı, 2024).

The present study's argument that Differentiated Learning constitutes not merely a technical instructional strategy, but an enactment of humanistic values warrants elaboration. The recognition of individual learner profiles in Differentiated Learning enacts, at the level of instructional design, the philosophical conviction that each human being is irreducibly unique and deserving of individualized recognition. This aligns with broader arguments in the educational philosophy literature regarding the inherent dignity of learners (Biesta, 2015; Marginson, 2018) and suggests that assessment reform must proceed in tandem with methodological transformation.

The 3R Strategic Framework: Operationalizing APM for Educational Practice

The three-stage Reorientation–Reconstruction–Resonance (3R) framework synthesizes the study's findings into a practical strategic guide. In the Reorientation stage, educators undertake systematic mapping of learners' psychological profiles—their motivational orientations need states, and prior relational experiences—before designing instructional sequences (Marginson, 2018). This preliminary diagnostic work ensures that subsequent instructional design is grounded in empirical knowledge of actual learners rather than idealized pedagogical subjects.

The Reconstruction stage operationalizes this knowledge in flexible, adaptive instructional designs that accommodate diverse learning profiles, integrate appropriate technologies in accordance with Digital Humanism principles, and provide varied pathways for demonstrating competence (Li & Wong, 2025). The Resonance stage, finally, attends to the quality of educational relationships: the creation of learning environments in which technology facilitates rather than obstructs genuine human connection, and in which learners experience education as meaningful rather than merely credentialing (Biesta, 2015).

Collectively, the 3R framework addresses a gap identified in the literature: the absence of an integrative, sequenced operational model that bridges the psychological foundations of educational transformation with the practical realities of classroom implementation. By specifying distinct yet interrelated stages, the framework provides

educators, curriculum designers, and institutional leaders with a structured pathway for methodological renewal.

Limitations and Directions for Future Research

This study has several limitations that should be acknowledged. First, as a library research design, it does not provide empirical evidence of the APM framework's effectiveness in specific educational settings. Second, the focus on three major Western psychological traditions may underrepresent perspectives from non-Western educational philosophies, which offer rich and distinct conceptualizations of human nature and learning. Third, the practical implementation of Digital Humanism principles will necessarily vary across educational contexts characterized by different levels of technological infrastructure, cultural norms, and institutional resources.

Future research should address these limitations through: (a) empirical studies that test the APM framework's effectiveness across diverse educational levels and cultural contexts; (b) longitudinal investigations examining the relationship between psychological well-being indicators and long-term academic and life outcomes; (c) comparative analyses that integrate non-Western educational philosophies into the APM framework; and (d) teacher education research examining the professional competencies required to implement Digital Humanism principles effectively.

4. CONCLUSION

This study has demonstrated that human nature, as conceptualized across behaviorist, cognitivist, and humanistic psychological traditions, constitutes a fundamental variable in determining the direction and effectiveness of learning methodology transformation. The convergent synthesis of these traditions yields the Adaptive-Psychological Methodology (APM) framework, which integrates structural clarity, scaffolded cognitive development, and facilitative humanistic orientation into a coherent and practically applicable model.

Two cross-cutting contributions emerge as particularly significant. First, the concept of Digital Humanism provides a philosophically grounded criterion for technology integration: educational technologies are appropriate to the extent that they amplify rather than erode distinctively human capacities, including empathy, ethical reasoning, and creative synthesis. Second, the repositioning of psychological well-being as a primary indicator of educational success challenges the hegemony of narrow cognitive achievement metrics and demands structural reforms in both instructional design and assessment practice.

The three-stage 3R strategic framework—Reorientation, Reconstruction, Resonance—translates these theoretical contributions into an operational guide for educational practice, providing educators and policymakers with a sequenced pathway for methodological transformation that preserves human identity and dignity in an era of rapid technological disruption. Ultimately, the argument advanced here is that education cannot remain an instrument of liberation—as it aspires to be—if its methods are systematically misaligned with the psychological nature of the human beings it

purports to serve. Recognizing learners as autonomous, socially embedded, and meaning-seeking subjects is not a luxury afforded only to elite institutions; it is the irreducible precondition of any educational practice worthy of the name.

REFERENCES

- Babayeva, F. (2025). Humanization of education as a priority of the contemporary pedagogical process. *Вісник післядипломної освіти: збірник наукових праць. Серія «Педагогічні науки»*. ОНОВЛЕНО, 33(62), 12-27. <https://ojs.uem.edu.ua/index.php/vpop/article/view/843>
- Battaglio, R. P., Belle, N., & Cantarelli, P. (2022). Self-determination theory goes public: experimental evidence on the causal relationship between psychological needs and job satisfaction. *Public Management Review*, 24(9), 1411-1428. <https://doi.org/10.1080/14719037.2021.1900351>
- Biesta, G. (2015). Freeing teaching from learning: Opening up existential possibilities in educational relationships. *Studies in philosophy and education*, 34(3), 229-243. <https://doi.org/10.1007/s11217-014-9454-z>
- Brenner, C. A. (2022). Self-regulated learning, self-determination theory and teacher candidates' development of competency-based teaching practices. *Smart Learning Environments*, 9(1), 3. <https://doi.org/10.1186/s40561-021-00184-5>
- Chan, C. K. Y., & Tsi, L. H. (2023). The AI revolution in education: will AI replace or assist teachers in higher education?. *arXiv preprint arXiv:2305.01185*. <https://doi.org/10.48550/arXiv.2305.01185>
- Colelli, J. (2025). From pure experience to cognitive models: constitutive explanations and modalization in phenomenological cognitivism: Jacopo Colelli. *Phenomenology and the Cognitive Sciences*, 1-24. <https://doi.org/10.1007/s11097-025-10095-2>
- Dadandi, İ., & Yazıcı, H. (2024). Cognitive ability or motivation, or both: An integrative path analysis of the interplay between two key factors in academic achievement. *British Educational Research Journal*, 50(5), 2342-2362. <https://doi.org/10.1002/berj.4027>
- Deng, Z. (2021). Constructing 'powerful' curriculum theory. *Journal of Curriculum Studies*, 53(2), 179-196. <https://doi.org/10.1080/00220272.2021.1887361>
- Díaz de la Cruz, C., Fernández Fernández, J. L., & Villegas-Galaviz, C. (2025). Model of ethical analysis of digital technologies: towards true digital humanism. *AI & SOCIETY*, 40(7), 5743-5754. <https://doi.org/10.1007/s00146-025-02330-w>
- Elkins, D. N. (2022). Common factors: What are they and what do they mean for humanistic psychology?. *Journal of Humanistic Psychology*, 62(1), 21-30. <https://doi.org/10.1177/0022167819858533>
- Garnham, A. (2019). Cognitivism. *The Routledge companion to philosophy of psychology* (pp. 99-110). Routledge. <https://doi.org/10.4324/9780429244629-7>
- George-Reyes, C. E., Rumbaut-Rangel, D., Buenestado-Fernández, M., & Oliva-Córdova, L. M. (2026). Artificial Intelligence in Education: From Instrumental Adoption to Human-Centered Pedagogical Ecologies. *Information*, 17(6), 616. <https://doi.org/10.3390/info17060616>
- Henry, C. D. (2017). Humanistic psychology and introductory textbooks: A 21st-century reassessment. *The Humanistic Psychologist*, 45(3), 281. <https://psycnet.apa.org/doi/10.1037/hum0000056>

- Iman, M., Arabnia, H. R., & Rasheed, K. (2023). A review of deep transfer learning and recent advancements. *Technologies*, 11(2), 40. <https://doi.org/10.3390/technologies11020040>
- Leeder, T. M. (2022). Behaviorism, skinner, and operant conditioning: Considerations for sport coaching practice. *Strategies*, 35(3), 27-32. <https://doi.org/10.1080/08924562.2022.2052776>
- Li, K. C., & Wong, B. T. M. (2025). Agile-blended learning: an innovative technology-mediated approach to distance education. *SN Computer Science*, 6(2), 127. <https://doi.org/10.1007/s42979-024-03646-y>
- Marginson, S. (2018). Global cooperation and national competition in the world-class university sector. In *World-class universities* (pp. 13-53). Brill. <https://brill.com/edcollbook/title/39594#page=29>
- Mar'ah, G. H., & Ar-Romli, N. P. (2025). Human psychological phenomena in science and islam: An islamic education values perspective. *Jurnal Ilmu Pendidikan dan Sains Islam Interdisipliner*, 177-188. <https://doi.org/10.59944/jipsi.v4i4.480>
- Mruk, C. J., & Skelly, T. (2017). Is self-esteem absolute, relative, or functional? Implications for cross-cultural and humanistic psychology. *The Humanistic Psychologist*, 45(4), 313. <https://psycnet.apa.org/doi/10.1037/hum0000075>
- Ng, D. T. K., Leung, J. K. L., Su, J., Ng, R. C. W., & Chu, S. K. W. (2023). Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Educational technology research and development*, 71(1), 137-161. <https://doi.org/10.1007/s11423-023-10203-6>
- Peters, M. A. (2020). Posthumanism, platform ontologies and the 'wounds of modern subjectivity'. *Educational Philosophy and Theory*, 52(6), 579-585. <https://doi.org/10.1080/00131857.2019.1608690>
- Ramsey, E., Antoniou, G., Peroni, M., Muckridge, B., Ghattas, R., Fazio, P., ... & Wolf, D. (2025). Artificial intelligence in higher education: A case study of faculty teaching methodologies at a private university. *International Journal of Academic Studies in Science and Education*, 3(1), 1-30. <https://doi.org/10.55549/ijasse.43>
- Riva, G. (2025). The Architecture of Cognitive Amplification: Enhanced Cognitive Scaffolding as a Resolution to the Comfort-Growth Paradox in Human-AI Cognitive Integration. *arXiv preprint arXiv:2507.19483*. <https://doi.org/10.48550/arXiv.2507.19483>
- Ryan, R. M., Deci, E. L., Vansteenkiste, M., & Soenens, B. (2021). Building a science of motivated persons: Self-determination theory's empirical approach to human experience and the regulation of behavior. *Motivation science*, 7(2), 97. <https://psycnet.apa.org/doi/10.1037/mot0000194>
- Ryan, R. M., & Deci, E. L. (2024). Self-determination theory. In *Encyclopedia of quality of life and well-being research* (pp. 6229-6235). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-17299-1_2630
- Seligman, M. E. (2019). Positive psychology: A personal history. *Annual review of clinical psychology*, 15(1), 1-23. <https://doi.org/10.1146/annurev-clinpsy-050718-095653>
- Selwyn, N. (2024). Digital degrowth: Toward radically sustainable education technology. *Learning, Media and Technology*, 49(2), 186-199. <https://doi.org/10.1080/17439884.2022.2159978>
- Singer, E. (2022). Piaget and Vygotsky: Powerful inspirators for today's students in early education and developmental psychology. *Piaget and Vygotsky in XXI century: Discourse in early childhood education* (pp. 129-143). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-05747-2_8

- Toktas, E. (2025). Future scenarios of digital humanities and post-humanist education. *Journal of Foresight and Health Governance*, 2(1), 21-31. <https://journalfph.com/index.php/jfph/article/view/3>
- Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational psychology review*, 28(2), 315-352. <https://doi.org/10.1007/s10648-015-9319-1>
- Wong, P. T. (2017). Meaning-centered approach to research and therapy, second wave positive psychology, and the future of humanistic psychology. *The Humanistic Psychologist*, 45(3), 207. <https://psycnet.apa.org/doi/10.1037/hum0000062>
- Yan, P., Abdulkadir, A., Luley, P. P., Rosenthal, M., Schatte, G. A., Grewe, B. F., & Stadelmann, T. (2024). A comprehensive survey of deep transfer learning for anomaly detection in industrial time series: Methods, applications, and directions. *IEEE Access*, 12, 3768-3789. <https://doi.org/10.1109/ACCESS.2023.3349132>