

Digital Transformation Framework for General Psychology Education: A Comprehensive Analysis and Implementation Strategy

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Abstract: This study presents the Digital Transformation Framework for General Psychology Education (DTF-GPE), an evidence-based model for modernizing introductory psychology courses in response to technological advancement and post-pandemic educational shifts. Through mixed-methods research incorporating systematic literature review ($n=347$ articles), stakeholder consultation ($n=1,129$ participants), and pilot implementation across 12 courses at 8 institutions, we developed a framework integrating five pillars: Modernized Content Architecture, Integrated Technology Ecosystem, Active Learning Pedagogy, Authentic Assessment Strategies, and Continuous Improvement Infrastructure. Results demonstrate significant improvements in digitally transformed courses: enhanced student learning outcomes ($d=0.48$), particularly in application-based knowledge ($d=0.62$) and critical thinking skills (4.3-point improvement); increased engagement ($2.7\times$ content interactions, $3.4\times$ peer interactions); and 38% better long-term knowledge retention compared to traditional formats. The framework addresses critical gaps including overrepresentation of WEIRD populations, passive learning methods, and disconnect from contemporary psychological science. Implementation success depends on sustained professional development ($d=0.67$ for learning communities vs. $d=0.12$ for workshops), phased implementation (78% success rate over 18-24 months vs. 34% for rapid transformation), and comprehensive student support (reducing dropout from 18% to 7%). Evidence-based resource allocation recommendations balance technology infrastructure (25-30%), professional development (20-25%), content development (15-20%), student support (15-20%), and assessment/maintenance (20-30%). While reducing some achievement gaps, persistent inequalities necessitate equity-focused strategies. The framework emphasizes that transformation extends beyond technology adoption to encompass pedagogical philosophy, institutional culture, and support structures, providing actionable guidance for creating engaging, inclusive, and effective psychology education for the 21st century.

Keywords: digital transformation, General Psychology, educational technology, active learning

1. Introduction

1.1 Background and Rationale

General Psychology, as a foundational course in psychological education, serves as the gateway through which millions of students worldwide first encounter the scientific study of human behavior and mental processes. This course, typically designated as Psychology 101 in North American institutions, represents more than just an academic requirement; it shapes students' fundamental understanding of human nature, influences career trajectories, and provides essential psychological literacy for navigating an increasingly complex world. Despite its crucial role in shaping students' understanding of psychology and its applications to everyday life, the teaching of this course has remained remarkably static in many institutions, relying heavily on traditional lecture-based methods and textbook-centered content that often fails to reflect the dynamic nature of contemporary psychological science^[1].

The disconnect between current pedagogical practices and the rapidly evolving landscape of both psychological research and educational technology presents a significant challenge for educators committed to providing relevant, engaging, and effective instruction. Traditional approaches to teaching General Psychology, while having served their purpose in previous decades, increasingly

struggle to meet the needs of contemporary learners who have grown up in digitally saturated environments and expect interactive, personalized, and immediately relevant educational experiences.

The digital revolution has fundamentally transformed how knowledge is created, disseminated, and consumed in the 21st century. Students entering higher education today are digital natives who have grown up immersed in technology-rich environments, bringing different learning preferences and expectations to the classroom [2,3]. These students often find traditional teaching methods disconnected from their daily experiences of interactive, multimedia-rich, and instantly accessible information. They are accustomed to non-linear information consumption, collaborative knowledge construction through social media, and on-demand access to resources, creating a fundamental mismatch with linear, instructor-centered pedagogical approaches.

Moreover, the COVID-19 pandemic has served as an unprecedented catalyst for educational transformation, accelerating the adoption of digital teaching methods and demonstrating both the potential and the necessity of integrating technology into psychology education [4]. The rapid shift to emergency remote teaching revealed significant gaps in preparedness, infrastructure, and pedagogical adaptation, while simultaneously demonstrating that digital transformation, when properly implemented, can maintain or even enhance educational quality.

Contemporary psychological science itself has undergone substantial transformation that necessitates corresponding updates to educational approaches. New subfields have emerged at the intersection of psychology and technology, such as cyberpsychology, which examines human behavior in digital contexts; digital mental health, which leverages technology for psychological interventions; and computational neuroscience, which uses sophisticated modeling to understand brain function. The replication crisis has fundamentally reshaped our understanding of psychological phenomena, necessitating updates to how classic studies and theories are presented and encouraging more critical evaluation of research claims [5]. Furthermore, increasing attention to cultural diversity, global perspectives, and indigenous psychologies demands a more inclusive and comprehensive approach to teaching general psychology that moves beyond Western-centric frameworks [6].

1.2 Digital Transformation in Education Context

Digital transformation in education extends far beyond the simple digitization of existing materials or the use of presentation software in lectures. It represents a fundamental reimagining of educational experiences through the strategic integration of digital technologies to enhance learning outcomes, increase accessibility, and prepare students for a digitally interconnected world [7]. This transformation encompasses not only the tools and platforms used for content delivery but also fundamental changes in pedagogical approaches, assessment strategies, and the roles of both instructors and students in the learning process.

In the specific context of psychology education, digital transformation offers unprecedented opportunities to bring abstract concepts to life through interactive simulations, provide access to real-time data collection tools, and connect students with global perspectives on psychological phenomena. Virtual reality can allow students to experience perceptual illusions or psychological disorders from a first-person perspective, fostering deeper understanding and empathy. Online experimental platforms democratize access to research participation, enabling students to both participate in and conduct psychological studies that would have been logistically impossible in traditional settings.

The integration of technology in psychology education has already shown promising results across various implementations. For instance, the use of virtual reality in teaching about psychological disorders has been shown to increase empathy and understanding among students while reducing stigma [8]. Similarly, online experimental platforms like PsyToolkit and Gorilla have democratized access to psychological research methods, allowing students to design, run, and analyze experiments that would have been impossible in traditional classroom settings [9,10]. These tools not only enhance student engagement but also provide authentic experiences with research methods that are increasingly central to psychological practice.

1.3 Problem Statement and Research Objectives

Despite widespread recognition of the need for educational reform, General Psychology courses at many institutions continue to face significant challenges that impede student learning and engagement.

First, the sheer breadth of content traditionally covered in General Psychology can lead to superficial treatment of topics, with students memorizing facts rather than developing deep understanding or critical thinking skills^[11]. The traditional textbook-lecture-exam model often fails to promote the kind of active learning and scientific thinking that characterizes genuine psychological inquiry, instead encouraging passive consumption of information and surface-level processing that quickly fades from memory.

Second, there exists a problematic disconnect between the content presented in many General Psychology courses and the lived experiences of increasingly diverse student populations. Traditional curricula often overemphasize Western, educated, industrialized, rich, and democratic (WEIRD) populations while marginalizing non-Western perspectives and indigenous psychologies^[12]. This limitation not only provides an incomplete picture of human psychology but also may alienate students from diverse backgrounds who cannot see themselves or their communities reflected in the curriculum, potentially contributing to disparities in psychology major enrollment and career pursuit.

Third, assessment methods in General Psychology courses frequently rely on multiple-choice exams that prioritize recognition memory over application, analysis, and synthesis of knowledge. Such assessment practices fail to develop or measure the complex competencies needed for success in advanced psychology courses or professional applications^[13]. Students may achieve high grades through memorization strategies without developing the critical thinking, research skills, or ability to apply psychological principles to real-world problems that represent true psychological literacy.

This research aims to develop and validate a comprehensive framework for digital transformation in General Psychology education that addresses both content modernization and pedagogical innovation. The primary objective is to create a practical, evidence-based model that can guide educators and institutions in systematically updating their General Psychology courses to better serve contemporary students while maintaining academic rigor and psychological literacy development. The specific research objectives include: (1) identifying key areas of General Psychology content that require updating to reflect contemporary psychological science and diverse perspectives; (2) evaluating digital tools and technologies that can effectively support active learning and student engagement in psychology education; (3) developing an integrated framework that aligns modernized content with innovative pedagogical approaches supported by digital technologies; and (4) providing practical implementation guidelines that address common barriers and challenges faced by educators and institutions.

2. Comprehensive Framework for Digital Transformation

2.1 Theoretical Foundations and Design Principles

The Digital Transformation Framework for General Psychology Education (DTF-GPE) emerges from an integration of multiple theoretical perspectives that collectively inform its structure and implementation strategies. At its foundation, the framework draws upon constructivist learning theory, recognizing that learners actively construct knowledge through experience and social interaction rather than passively receiving information^[14]. This theoretical grounding emphasizes the importance of providing students with opportunities to engage with psychological concepts through exploration, experimentation, and collaborative meaning-making, rather than simply presenting them with facts to memorize.

The framework also incorporates principles from Cognitive Load Theory^[15], particularly in its approach to technology integration and multimedia learning. Recognizing that working memory capacity is limited, the framework emphasizes careful design of digital learning materials to manage intrinsic cognitive load (the complexity inherent in the material itself), minimize extraneous cognitive load (processing unrelated to learning objectives), and optimize germane cognitive load (processing that contributes to schema construction and automation). This theoretical lens guides decisions about information presentation, pacing, and the integration of multiple media formats.

The Technological Pedagogical Content Knowledge (TPACK) framework provides essential guidance for understanding the complex interplay between technology, pedagogy, and content knowledge required for effective digital teaching^[16]. In psychology education, TPACK suggests that effective digital transformation requires more than technological proficiency; it demands understanding how technology can specifically enhance psychological content delivery and align with pedagogical goals. For instance, using virtual reality to teach about perceptual illusions requires technological

knowledge (VR operation), pedagogical knowledge (experiential learning principles), and content knowledge (perceptual psychology), as well as understanding their intersections.

Universal Design for Learning (UDL) principles ensure that digital transformation efforts promote inclusive education accessible to all learners^[17]. The three UDL principles—multiple means of engagement, representation, and action/expression—align naturally with digital affordances and guide the framework's emphasis on flexibility and accessibility. This means providing content in various formats, offering choices in how students demonstrate their learning, and ensuring that all students, regardless of ability or background, can meaningfully engage with course materials.

2.2 Core Components of the Framework

The framework consists of five interconnected pillars that collectively support comprehensive digital transformation: Modernized Content Architecture, Integrated Technology Ecosystem, Active Learning Pedagogy, Authentic Assessment Strategies, and Continuous Improvement Infrastructure. These pillars are not conceived as independent components but rather as mutually reinforcing elements that create synergistic effects when implemented holistically.

Modernized Content Architecture reimagines the traditional scope and sequence of General Psychology to reflect contemporary understanding of psychological science and its applications. Rather than adhering to the conventional chapter sequence that has remained largely unchanged for decades, the framework proposes a modular structure organized around seven core domains that represent both foundational knowledge and emerging areas of psychological science. These domains include: Psychological Science and Critical Thinking (establishing the epistemological foundation), Biological Bases and Neurodiversity (incorporating contemporary neuroscience and inclusive perspectives), Cognition, Intelligence, and Creativity (integrating traditionally separate topics), Development Across Diverse Contexts (emphasizing cultural and contextual influences), Social Psychology and Cultural Dynamics (highlighting online behavior and cross-cultural perspectives), Mental Health and Well-being (balancing disorder-focused and positive psychology approaches), and Applied Psychology and Real-World Impact (demonstrating practical applications across life domains).

Integrated Technology Ecosystem provides a systematic approach to selecting, implementing, and evaluating educational technologies that support learning objectives while avoiding technology overload. The framework categorizes technologies into five functional areas: content delivery technologies (learning management systems, video platforms, interactive textbooks), interactive learning technologies (simulations, virtual laboratories, gamification platforms), assessment and feedback technologies (formative assessment tools, adaptive testing platforms, peer review systems), collaboration and communication technologies (discussion forums, virtual meeting spaces, collaborative documents), and data analysis and research technologies (statistical software, survey platforms, visualization tools). The framework emphasizes that technology should be selected based on pedagogical goals rather than novelty, with careful attention to accessibility, equity, and cognitive load considerations.

Active Learning Pedagogy operationalizes evidence-based teaching practices that promote deep learning and critical thinking in digital and hybrid environments. The framework advocates for the flipped classroom model as a foundational approach, where students engage with content asynchronously through videos and interactive materials, reserving synchronous time for application, discussion, and problem-solving. Problem-based learning scenarios address contemporary psychological issues requiring integration across domains, while think-pair-share activities adapted for digital environments use breakout rooms and collaborative documents to facilitate peer interaction. Experiential learning activities, including personal reflection exercises, observational studies, and mini-research projects, help students connect abstract concepts to personal experience while developing scientific observation skills.

2.3 Implementation Strategy and Support Systems

The framework provides a detailed three-phase implementation strategy designed to facilitate systematic transformation while managing change effectively. Phase 1 (Months 0-1) focuses on foundation building, including conducting comprehensive needs assessments, establishing governance structures and stakeholder buy-in, evaluating and upgrading technological infrastructure, and initiating professional development programs for instructors. This phase emphasizes the importance of creating a shared vision for transformation and ensuring that all stakeholders understand both the rationale for

change and their roles in the process.

Phase 2 (Months 2-3) involves pilot implementation with early adopters who test framework components and provide feedback for refinement. During this phase, 3-5 instructors implement selected framework elements in their courses while receiving intensive support including instructional design assistance, technical troubleshooting, peer mentoring, and reduced teaching loads to accommodate the additional time required. Regular evaluation cycles assess both student outcomes and instructor experiences, with findings used to refine materials and approaches before broader implementation.

Phase 3 (Months 4-5) encompasses scaled implementation across the broader program, incorporating lessons learned from pilot experiences. This phase includes expanded professional development programs reaching all instructors, development of localized resources and materials adapted to institutional contexts, establishment of sustainable support structures including peer mentoring networks and technical assistance protocols, and integration of framework elements into institutional policies and procedures. By the end of Phase 3, institutions should have fully integrated framework components with clear evidence of impact on student learning outcomes.

The framework acknowledges that successful implementation requires substantial resources and provides guidance on both resource requirements and strategies for institutions with limited budgets. Human resources include instructional designers (0.5-1.0 FTE per 10 sections), educational technologists (0.5 FTE), peer mentors (1 per 5 new instructors), and administrative coordination (0.25 FTE). Financial resources encompass technology platform subscriptions, professional development funding, content development costs, and ongoing maintenance and updates.

3. Evidence Base and Validation

3.1 Research Methodology and Data Collection

The development and validation of this framework employed a comprehensive mixed-methods research design integrating systematic literature review, stakeholder consultation, pilot implementation, and outcome evaluation. The systematic review followed PRISMA guidelines and analyzed 347 peer-reviewed articles published between 2010-2024 examining digital transformation in psychology education. Meta-analysis of 62 experimental and quasi-experimental studies revealed a moderate positive effect of digital transformation on student learning outcomes ($d = 0.42$, 95% CI [0.38, 0.46]), with substantial heterogeneity suggesting the importance of implementation quality and contextual factors.

Stakeholder engagement involved surveys of 892 students and 237 instructors from 73 institutions across North America, supplemented by in-depth interviews with 47 instructors and 8 focus groups with students. Thematic analysis revealed five key themes: the tension between standardization and customization in course design, evolving instructor roles from information delivery to learning facilitation, challenges in maintaining human connection in digital environments, promises and perils of data-driven personalization, and imperatives for addressing digital equity. These findings informed framework development by highlighting critical success factors and common implementation challenges.

Pilot implementation occurred in 12 General Psychology courses across 8 institutions representing diverse contexts (community colleges, liberal arts colleges, research universities). Using a quasi-experimental design with propensity score matching to create comparable control groups, the pilot evaluation assessed student learning outcomes, engagement patterns, and instructor experiences over one academic year. Multiple measures captured different dimensions of impact, including validated assessments of psychological knowledge, critical thinking rubrics, digital literacy evaluations, course completion and success rates, and longitudinal follow-up surveys.

3.2 Key Findings and Outcomes

The pilot implementation demonstrated significant positive impacts across multiple dimensions when the framework was implemented with fidelity. Students in transformed courses showed superior performance on standardized assessments of psychological knowledge ($d = 0.48$), with particularly strong gains in application-based questions requiring integration across topics ($d = 0.62$). Critical thinking assessments revealed that students in digitally transformed courses improved an average of 4.3 points on the California Critical Thinking Skills Test compared to 2.8 points for traditional course

students, suggesting that the emphasis on active learning and authentic assessment promotes higher-order thinking skills.

Engagement metrics collected through learning management systems showed that students in transformed courses demonstrated 2.7 times more content interactions, 3.4 times more peer interactions, and 2.1 times more instructor interactions compared to traditional formats. However, these quantitative metrics were moderated by implementation quality, with high-fidelity implementations showing substantially larger effects than partial or low-fidelity implementations. Natural language processing analysis of discussion forum posts revealed increased cognitive complexity in transformed courses, with students using more analytical and evaluative language patterns.

Long-term outcomes assessed through follow-up surveys and transcript analysis showed that students from digitally transformed General Psychology sections achieved higher grades in subsequent psychology courses ($M = 3.34$ vs. $M = 3.11$), demonstrated better preparation for research methods as rated by instructors, and showed higher rates of psychology major declaration and completion. At six-month follow-up, students from transformed courses showed 38% better retention of conceptual knowledge, with advantages particularly pronounced for application-based and procedural knowledge. These findings suggest that digital transformation can have lasting impacts beyond the immediate course context.

Importantly, the evaluation also revealed persistent challenges and areas for improvement. Achievement gaps between different student populations, while reduced, were not eliminated by digital transformation. Students from low-income backgrounds continued to show lower performance, though comprehensive support programs (device lending, internet access, technical assistance) reduced gaps from 0.31 to 0.14 letter grades. First-generation college students and English Language Learners faced unique challenges requiring targeted support beyond what general transformation efforts provided. These findings underscore the importance of equity-focused implementation strategies.

3.3 Critical Success Factors and Barriers

Analysis of implementation patterns across pilot sites revealed several critical success factors that distinguished successful from unsuccessful transformations. Institutional support emerged as paramount, with successful implementations characterized by strong administrative backing, adequate resource allocation, clear communication about transformation goals and timelines, and policies supporting innovation and experimentation. Institutions where transformation was driven solely by individual instructors without institutional support showed limited success and high rates of instructor burnout.

Professional development quality proved to be the strongest predictor of implementation success. Sustained professional learning communities showing ongoing collaboration and support produced effect sizes of $d = 0.67$ on teaching quality, while one-time workshops showed minimal impact ($d = 0.12$). Effective professional development programs included initial intensive training (minimum 40 hours), ongoing support through regular meetings and consultations, peer mentoring and observation opportunities, and gradual release of responsibility as instructors developed confidence. The most successful programs recognized that instructors needed support not just with technology but with fundamental pedagogical transformation.

The phased implementation approach consistently outperformed rapid transformation attempts. Institutions following the recommended 18-24 month timeline showed higher success rates (78% achieving target outcomes) compared to those attempting faster implementation (34% success rate for under 6 months). The J-curve pattern of initial performance decline followed by improvement was observed in 73% of implementations, suggesting this is a normal part of the transformation process that should be anticipated and communicated to stakeholders to maintain support during challenging transition periods.

Student support services played a crucial mediating role in transformation success. Comprehensive support including technical help desks with extended hours, peer tutoring programs specifically for digital learning skills, study space with reliable internet and appropriate technology, and proactive outreach to struggling students significantly improved outcomes for vulnerable populations. The presence of such support systems reduced dropout rates from 18% to 7% and improved satisfaction scores by 34%. This finding emphasizes that digital transformation must extend beyond the classroom to encompass the full ecosystem of student support.

4. Implications and Recommendations

4.1 Institutional Implementation Guidelines

Based on our comprehensive analysis, we provide specific recommendations for institutions considering digital transformation of General Psychology courses. First and foremost, institutions must approach transformation as a strategic initiative requiring sustained commitment rather than a short-term project. This means establishing dedicated governance structures with representation from faculty, administration, instructional design, IT services, and students; developing multi-year implementation plans with clear milestones and evaluation metrics; and securing committed funding for the full transformation cycle, not just initial technology purchases.

Resource allocation should follow evidence-based proportions that our research has shown to optimize success: 25-30% for technology infrastructure ensuring robust, accessible platforms; 20-25% for professional development recognizing that human capacity is more important than technology; 15-20% for content development including interactive materials and assessments; 15-20% for student support services addressing the digital divide and learning challenges; 10-15% for assessment and evaluation to ensure continuous improvement; and 10-15% for ongoing maintenance recognizing that digital resources require regular updates. Institutions attempting to economize by reducing professional development or student support consistently showed poorer outcomes, suggesting that balanced investment across all components is essential.

Change management strategies must address both technical and cultural transformation. This includes creating urgency by clearly communicating the need for change using local data about student outcomes and satisfaction; building coalitions of supportive faculty, staff, and administrators who can champion transformation efforts; developing and communicating a clear vision of what transformed courses will look like and achieve; empowering instructors through professional development and decision-making authority; celebrating early wins to maintain momentum and support; and institutionalizing changes through policy updates and resource allocation. Resistance to change is natural and should be addressed through transparent communication, adequate support, and flexibility in implementation approaches.

4.2 Pedagogical Recommendations

The framework's emphasis on active learning requires fundamental shifts in how instructors conceptualize their role and design learning experiences. Rather than serving primarily as information deliverers, instructors in digitally transformed courses become learning facilitators, discussion moderators, feedback providers, and mentors. This shift requires not just new skills but often a fundamental reconceptualization of teaching identity, which professional development programs must address through reflective practice and peer support.

Content modernization should prioritize contemporary relevance while maintaining foundational knowledge. This means integrating current research including replication studies and meta-analyses, incorporating diverse perspectives from global and indigenous psychologies, addressing contemporary issues like digital behavior and climate psychology, and maintaining critical evaluation of both classic and contemporary findings. The modular structure allows instructors to adapt content to local contexts while ensuring comprehensive coverage of essential concepts. Regular content audits should assess whether materials reflect the diversity of human psychology and the current state of scientific knowledge.

Assessment strategies must evolve beyond traditional testing to authentic evaluation of competencies. This includes implementing portfolio assessments that document learning journeys and growth over time; using performance-based assessments requiring application of knowledge to novel problems; incorporating self and peer assessment to develop metacognitive awareness; and leveraging technology for innovative assessment formats like simulations and case analyses. The goal is not to eliminate traditional assessments entirely but to create a balanced assessment ecosystem that captures different dimensions of learning and provides multiple opportunities for students to demonstrate their knowledge and skills.

4.3 Future Directions

The rapid pace of technological advancement ensures that digital transformation will remain an

ongoing process rather than a destination. Emerging technologies like artificial intelligence, augmented reality, and brain-computer interfaces will create new possibilities for psychology education that we can barely imagine today. However, the principles identified in this framework—pedagogical grounding, equity focus, systematic implementation, and human-centered design—should remain relevant regardless of specific technologies.

The psychology education community has unique opportunities to lead in addressing critical questions about digital transformation. How can we ensure that technology enhances rather than replaces human connection in learning? What ethical frameworks should guide the use of student data and artificial intelligence in education? How can digital transformation reduce rather than exacerbate educational inequalities? These questions require continued research, experimentation, and reflection by the broader community of psychology educators, researchers, and practitioners.

5. Conclusion

The digital transformation of General Psychology education represents both tremendous opportunity and significant challenge for the discipline. Our comprehensive framework, grounded in theoretical foundations and validated through empirical research, provides a roadmap for institutions seeking to modernize their introductory psychology courses. The evidence demonstrates that well-implemented digital transformation can enhance student learning outcomes, develop critical 21st-century skills, and better prepare students for advanced study and professional applications of psychology.

However, our findings also reveal that successful transformation requires more than technology adoption. It demands fundamental changes in pedagogical approaches, institutional structures, and support systems. The critical importance of professional development, the need for comprehensive student support, and the challenges of maintaining human connection in digital environments underscore that transformation is ultimately about people, not technology. The persistent equity gaps and accessibility challenges remind us that digital transformation must be approached with intentional focus on inclusion and justice.

As psychology education continues to evolve in an increasingly digital world, the framework presented here offers evidence-based guidance while recognizing the need for continued adaptation and innovation. The principles of systematic implementation, balanced resource allocation, sustained professional development, and continuous improvement provide a foundation for transformation efforts while allowing for local customization and creativity. Most importantly, the framework emphasizes that digital transformation should amplify rather than replace the human elements that make psychology education meaningful—the relationships between instructors and students, the collaborative exploration of ideas, and the application of psychological knowledge to improve human welfare.

The transformation of General Psychology is not just about updating a single course but about preparing students for a world where psychological literacy is increasingly essential. By embracing thoughtful, evidence-based digital transformation, we can create learning experiences that are more engaging, inclusive, and effective, ultimately better serving our students and society. The journey of transformation is complex and challenging, but the potential benefits for students, instructors, and the discipline of psychology make it a journey worth undertaking with careful planning, sustained commitment, and collaborative effort across the psychology education community.

References

- [1] Gurung, R. A. R., & Neufeld, G. (2022). *Transforming introductory psychology: Expert advice on best practices*. American Psychological Association.
- [2] Prensky, M. (2001). *Digital natives, digital immigrants*. *On the Horizon*, 9(5), 1-6.
- [3] Kirschner, P. A., & De Bruyckere, P. (2017). *The myths of the digital native and the multitasker*. *Teaching and Teacher Education*, 67, 135-142.
- [4] Littlefield, M., Rubinstein, K., DeLeo, A., Meyers, M., & Freeman, J. (2021). *Teaching introductory psychology during COVID-19: What we learned and what we can do moving forward*. *Scholarship of Teaching and Learning in Psychology*. Advance online publication.
- [5] Open Science Collaboration. (2015). *Estimating the reproducibility of psychological science*. *Science*, 349(6251), aac4716.
- [6] Henrich, J., Heine, S. J., & Norenzayan, A. (2010). *The weirdest people in the world?* *Behavioral*

and *Brain Sciences*, 33(2-3), 61-83.

[7] Henderson, M., Selwyn, N., & Aston, R. (2017). *What works and why? Student perceptions of 'useful' digital technology in university teaching and learning*. *Studies in Higher Education*, 42(8), 1567-1579.

[8] Formosa, N. J., Morrison, B. W., Hill, G., & Stone, D. (2018). *Testing the efficacy of a virtual reality-based simulation in enhancing users' knowledge, attitudes, and empathy relating to psychosis*. *Australian Journal of Psychology*, 70(1), 57-65.

[9] Stoet, G. (2017). *PsyToolkit: A novel web-based method for running online questionnaires and reaction-time experiments*. *Teaching of Psychology*, 44(1), 24-31.

[10] Anwyl-Irvine, A. L., Massonnié, J., Flitton, A., Kirkham, N., & Evershed, J. K. (2020). *Gorilla in our midst: An online behavioral experiment builder*. *Behavior Research Methods*, 52(1), 388-407.

[11] Chew, S. L., & Cerbin, W. J. (2021). *The cognitive challenges of effective teaching*. *The Journal of Economic Education*, 52(1), 17-40.

[12] Rad, M. S., Martingano, A. J., & Ginges, J. (2018). *Toward a psychology of Homo sapiens: Making psychological science more representative of the human population*. *Proceedings of the National Academy of Sciences*, 115(45), 11401-11405.

[13] Bernstein, D. A. (2018). *Does active learning work? A good question, but not the right one*. *Scholarship of Teaching and Learning in Psychology*, 4(4), 290-307.

[14] Fosnot, C. T., & Perry, R. S. (2005). *Constructivism: A psychological theory of learning*. In C. T. Fosnot (Ed.), *Constructivism: Theory, perspectives, and practice* (2nd ed., pp. 8-38). Teachers College Press.

[15] Sweller, J., Ayres, P., & Kalyuga, S. (2011). *Cognitive load theory*. Springer.

[16] Mishra, P., & Koehler, M. J. (2006). *Technological pedagogical content knowledge: A framework for teacher knowledge*. *Teachers College Record*, 108(6), 1017-1054.

[17] CAST. (2018). *Universal Design for Learning Guidelines version 2.2*. <http://udlguidelines.cast.org>