Student-Led Consultancy as a Distinctive Model of Experiential Learning: A Structure–Process–Outcome Framework for Higher Education

Fredrick Agboma
Liverpool Business School, Liverpool John Moores University, Liverpool, UK, and
Ivan Govender
Business School, Durban University of Technology, Durban, South Africa

Abstract

Purpose

This paper conceptualises Student-Led Consultancy (SLC) as a distinctive mode of experiential and work-based learning. It clarifies how SLC differs from other experiential forms such as internships and service-learning and advances a model that captures its structural design, interactive learning processes, and multidimensional outcomes.

Design/methodology/approach

Drawing on a desk-based synthesis of literature, policy, and practice, the paper integrates insights from experiential learning theory, work-integrated learning (WIL), and service-learning. It develops a Structure–Process–Outcome (SPO) framework and re-conceptualises Kolb's experiential learning cycle as a set of three independent but interconnected learning spirals that illustrate the iterative, multi-stakeholder relationships among students, clients, mentors, and peers.

Findings

SLC combines the client-focused realism of consultancy with the reflective depth of academic mentorship and the collaborative value of peer learning. The learning spirals represented in Figure 1 show how SLC extends Kolb's model from an individual cycle into a multi-directional, relational system of practice and reflection. This configuration generates simultaneous value for students, clients, and institutions through employability enhancement, identity formation, and applied problem-solving.

Practical implications

The SPO framework and spiral model together offer institutions a practical guide for designing and evaluating SLC initiatives. They specify how structural conditions, stakeholder engagement, and reflective processes combine to produce integrated professional and academic outcomes.

Originality/value

The paper contributes a new visual and theoretical articulation of SLC as a triadic experiential learning ecosystem centred on the student consultant. By depicting learning as three outward-flowing spirals linking students with clients, mentors, and peers, it provides a refined conceptual lens for educators and researchers seeking to embed consultancy-based experiential learning within higher education curricula.

Keywords: Student-Led Consultancy; Consultancy Education; Project-Based Learning; Work-Integrated Learning; Experiential Learning; Structured Autonomy; Reflective Practice; Higher Education

Paper type: Conceptual paper

Introduction

Experiential and work-based learning have become defining features of contemporary higher education, reflecting growing expectations that graduates should be capable of applying theoretical knowledge to complex, real-world contexts (Ambrose et al., 2010; Beard and Wilson, 2018; Jackson and Wilton, 2017). In response, universities have increasingly adopted pedagogical approaches such as internships, placements, service-learning, and project-based learning to bridge academic study and professional practice. While these models offer valuable workplace exposure, they often position students within existing organisational hierarchies, limiting autonomy, critical judgement, and sustained reflective engagement (Hora et al., 2019).

Student-Led Consultancy (SLC) has emerged as a distinctive response to these limitations. In SLC, students act as consultants, working with external clients on authentic organisational challenges while receiving academic mentorship and peer support. Unlike conventional placements, SLC positions students as active knowledge producers rather than passive recipients, emphasising agency, collaboration, and reflective decision-making (O'Leary, 2017; Ford et al., 2023). This balance between independence and academic scaffolding, often described as guided independence or structured autonomy, enables students to engage in complex problem-solving while remaining theoretically and ethically grounded (O'Leary, 2017; Jackson, 2015).

Despite the growing presence of SLC within business and management education, its conceptual underpinnings remain underdeveloped. Existing research has demonstrated benefits for student engagement and employability (Lycko and Galanakis, 2021; Harris et al., 2022), yet much of this work focuses on outcomes or programme features rather than on how learning unfolds across the multiple, simultaneous relationships that characterise consultancy-based education. Consequently, there is limited theoretical

clarity regarding how institutional design, interactional processes, and learning outcomes are connected when students engage concurrently with clients, academic mentors, and peers.

This paper addresses that gap by conceptualising Student-Led Consultancy as a distinctive experiential learning model, rather than as a variant of project-based or work-based learning. Drawing on experiential learning theory (Kolb, 1984), reflective practice (Schön, 1992), and social learning theory (Wenger, 1998), it advances a Structure–Process–Outcome (SPO) framework that integrates institutional conditions, relational learning processes, and multi-stakeholder outcomes. The framework extends existing experiential and work-based learning scholarship by specifying how SLC generates reciprocal value for students, clients, and institutions (Helyer and Lee, 2014; Domingues et al., 2024). Central to the framework is a reconceptualisation of Kolb's (1984) experiential learning cycle. Rather than treating learning as an individual and linear process, the paper extends Kolb's model into three interconnected learning spirals linking students with clients, academic mentors, and peers. These spirals capture the applied, reflective, and collaborative dynamics of consultancy-based learning, aligning with Schön's (1992) emphasis on reflection-in-action and Wenger's (1998) conception of learning as participation in communities of practice. By theorising learning as a relational and multi-directional system, the SPO framework offers an integrative architecture for analysing, designing, and evaluating student-led consultancy within higher education.

Conceptual approach and literature basis

To clarify how this conceptual contribution is developed, this paper adopts an integrative, conceptual synthesis approach rather than a systematic review. It draws on peer-reviewed scholarship on student-led consultancy, experiential learning, work-integrated learning, and service-learning, alongside policy- and practice-facing sources that describe consultancy-based curriculum design in higher education. Sources were prioritised for conceptual relevance, recency, and explicit discussion of learning design, stakeholder relationships, and educational outcomes. The SPO framework and the triadic learning spiral model were developed through iterative abstraction. Recurring institutional conditions were grouped as structural elements, recurring interactional mechanisms as processes, and recurring value claims as outcomes. The synthesis is weighted toward Anglo-Western literature, reflecting dominant publishing patterns in this field; this limitation is acknowledged and treated as a motivation for future comparative research across higher education and skills systems.

Experiential Learning in Higher Education

Experiential learning has long been recognised as central to the formation of competent, reflective, and employable graduates. As Beard and Wilson (2018) observe, it rests on the

principle that learning is most effective when grounded in lived experience and subsequent reflection. In higher education, this philosophy has given rise to diverse pedagogical approaches, ranging from internships and placements to service-learning and project-based study, each attempting to bridge theory and practice (Jackson and Wilton, 2017; Helyer and Lee, 2014). Yet despite their common intent, these approaches vary significantly in structure, stakeholder engagement, and the degree of student autonomy they afford.

The conceptual foundations of experiential learning are often traced to John Dewey's work on the educative value of experience, Kurt Lewin's action research, and Jean Piaget's constructivism – all of which conceptualise learning as an active, transformative process. Building on these traditions, Kolb (1984) articulated the Experiential Learning Theory (ELT), which remains one of the most widely applied frameworks in higher education. Kolb's four-stage cycle – Concrete Experience, Reflective Observation, Abstract Conceptualisation, and Active Experimentation – presents learning as a recursive process in which knowledge is created through the transformation of experience. While Kolb's model provides a robust foundation for understanding how individuals learn from experience, subsequent scholars have critiqued its tendency toward individualism and linearity. The model assumes a solitary learner progressing through defined stages, thereby underrepresenting the social, relational, and affective dimensions of learning (Beard and Wilson, 2018). In response, more recent perspectives have reimagined experiential learning as a socially mediated and contextually situated process, aligning with broader shifts toward relational and collaborative models of knowledge creation (Wenger, 1998; Schön, 1992).

Schön's (1992) notion of the reflective practitioner advanced experiential learning by emphasising the interplay between theory and action. He argued that professionals learn not only by applying knowledge but by reflecting in and on action, continually reshaping their understanding as situations evolve. This conception of reflection has informed higher education pedagogy by highlighting the importance of guided reflection and mentorship as mechanisms for developing professional judgement and adaptability (Harris et al., 2022). In contexts such as consultancy education, reflection operates as both an individual and collective act, shaped by dialogue between students, mentors, and peers. Wenger's (1998) theory of communities of practice adds a further social dimension, positioning learning as participation in shared practices where meaning is co-constructed through interaction. From this perspective, knowledge and identity evolve through collaboration, feedback, and mutual accountability rather than through isolated reflection. In higher education, this view has informed the design of learning environments that encourage peer learning, co-production, and professional socialisation (Lycko and Galanakis, 2021; He et al., 2023). Within SLC, these dynamics are particularly salient, as students learn not only from academic mentors but also through joint problem-solving with peers and clients.

Despite these theoretical developments, experiential learning in higher education often remains constrained by institutional and structural factors. Relatedly, negotiated project-based forms of work-based learning, including apprenticeship and professional application project models, have similarly sought to balance workplace authenticity with academic oversight by positioning learners at the boundary between educational and organisational contexts (Algers et al., 2016; Toledano-O'Farrill, 2017). Internships and placements, while valuable, can reproduce hierarchical workplace relationships that limit student autonomy and critical reflection (Hora et al., 2019). Service-learning, conversely, tends to prioritise civic engagement over professional application (Yorio and Ye, 2012). These limitations underline the need for models that balance authenticity, autonomy, and academic guidance – enabling students to act as responsible practitioners while maintaining reflective depth and theoretical grounding.

SLC responds to this need by positioning students as consultants operating within a structured yet autonomous framework. It provides a learning context that is authentic but academically mediated, reflective yet applied, and collaborative yet accountable. This dual emphasis on independence and structure, what O'Leary (2017) and Jackson (2015) describe as guided independence or structured autonomy, represents a critical evolution in experiential pedagogy. In this sense, SLC can be viewed as a bridge between Kolb's individual experiential cycle, Schön's reflective practice, and Wenger's social learning, offering a comprehensive model that integrates the cognitive, reflective, and collaborative dimensions of learning. This theoretical synthesis forms the foundation of the SPO Framework. The framework operationalises these insights by showing how institutional structures, relational processes, and multi-stakeholder outcomes combine to produce a coherent, triadic model of experiential education.

By positioning students as consultants who navigate authentic, client-based challenges under academic mentorship and peer collaboration, SLC exemplifies a multi-stakeholder learning environment that unites independence, reflection, and collaboration within a single pedagogical space. To capture how these dimensions interact, the next section introduces the SPO framework, which conceptualises SLC as a triadic system linking institutional structure, iterative learning processes, and multi-level outcomes.

While SLC shares core principles with established forms of experiential and work-based learning such as internships, placements, and service-learning, it differs in both structure and intent. Internships and placements typically immerse students within existing organisational hierarchies, privileging workplace exposure but often limiting opportunities for critical reflection and independent decision-making (Hora et al., 2019). Service-learning, conversely, emphasises civic engagement and social contribution but may underplay disciplinary depth and professional application (Yorio and Ye, 2012). In contrast, SLC positions students as autonomous consultants operating within an

academically structured framework. This balance between authenticity and scholarly rigour, what O'Leary (2017) and Jackson (2015) describe as structured autonomy, enables students to apply theory to practice while maintaining reflective and ethical oversight. Moreover, unlike other experiential modes that primarily involve a single learning relationship (e.g., student–employer or student–community), SLC engages students in multiple, reciprocal interactions with clients, mentors, and peers. These triadic relationships form the foundation of a multi-stakeholder learning ecosystem, which is conceptualised and operationalised through the Structure–Process–Outcome (SPO) framework introduced in the next section.

While the synthesis in this paper reflects dominant Anglo-Western publishing patterns, consultancy-style and practice-based learning models have also been documented in other contexts, including professional application projects in Mexico and agile, real-world project approaches in Germany, indicating the wider international resonance of student-led consultancy (Neumann and Baumann, 2021; Toledano-O'Farrill, 2017; 2019).

The Structure–Process–Outcome (SPO) Framework

To articulate the distinctive features of Student-Led Consultancy (SLC) as a pedagogical model, this paper proposes a Structure–Process–Outcome (SPO) framework. The framework provides a systematic lens through which to understand how institutional design, stakeholder interactions, and learning outcomes interconnect to produce meaningful educational and societal impact. It extends Kolb's (1984) experiential learning cycle by situating learning within a multi-stakeholder ecosystem, in which experience and reflection occur simultaneously across structural, relational, and outcome levels.

The framework is grounded in three interrelated layers. The Structure Layer defines the institutional and curricular architecture that supports SLC. It includes the formal recognition, policies, and partnership mechanisms that provide the scaffolding for consultancy projects and ensure their academic integrity. The Process Layer represents the lived experience of SLC – the iterative cycles of action, reflection, and feedback that occur as students interact with clients, mentors, and peers. This layer is operationalised through three interdependent learning spirals, each depicting a specific mode of engagement: applied (student–client), reflective (student–mentor), and collaborative (student–peer). The Outcome Layer captures the cumulative effects of these interactions, encompassing both tangible and intangible results. It illustrates how learning within SLC leads to enhanced employability and professional identity for students, organisational learning and innovation for clients, and strategic impact and engagement for institutions.

The SPO framework thus conceptualises SLC as a triadic, iterative, and relational model of experiential learning. It moves beyond linear notions of skill development to portray learning as a dynamic system of feedback loops that link individual transformation with institutional and societal benefit. In doing so, it provides both a theoretical structure for interpreting SLC and a practical guide for educators and policymakers seeking to embed authentic, partnership-based learning within higher education curricula.

Structural Layer: Programme Design and Institutional Support

The Structure Layer establishes the enabling conditions for SLC, it defines the institutional and curricular foundations that enable SLC to function as an effective mode of experiential and work-based learning. It encompasses the frameworks, resources, and relationships that create the conditions for iterative engagement among students, clients, mentors, and peers. This layer establishes the scaffolding that transforms individual consultancy projects into a systematic, academically grounded learning model. Three structural dimensions are central to the effective design and delivery of SLC: institutional alignment, curricular integration, and stakeholder engagement. At the institutional level, SLC requires formal recognition within quality assurance, workload, and partnership policies to ensure academic legitimacy and sustainability. Embedding SLC within accredited frameworks affirms its pedagogical value as a form of work-based learning rather than an extracurricular activity (Domingues et al., 2024; Emblen-Perry and Murphy, 2023). Institutional support includes recognising supervision within staff workload models, providing administrative infrastructure for client liaison, and aligning assessment and evaluation with employability and impact strategies (Helyer and Lee, 2014). By integrating SLC into strategic frameworks for teaching and engagement, universities demonstrate a commitment to learning that is practice-embedded, partnership-oriented, and societally relevant. This alignment supports the transformation of universities from knowledge providers to learning partners, organisations that co-create value with industry and community stakeholders (Ford et al., 2023).

The curricular dimension of SLC defines how consultancy projects are embedded within degree programmes and assessed for academic credit. To maintain rigour, project work should be explicitly linked to learning outcomes related to reflection, problem-solving, and communication. Assessment design typically combines three complementary elements: (1) a consultancy report or presentation assessing analytical and applied capability, (2) a reflective portfolio or journal evaluating integration of theory and experience, and (3) client and peer feedback assessing professionalism, collaboration, and stakeholder impact (Lycko and Galanakis, 2021; O'Leary, 2017). This multi-perspective approach reinforces the academic credibility of SLC while capturing the breadth of learning that occurs across its three spirals – applied, reflective, and collaborative. It also supports what O'Leary (2017) and Jackson (2015) describe as guided independence: a form of structured autonomy that balances student agency with academic scaffolding. This balance ensures that learning remains authentic and self-directed while anchored to clear pedagogical expectations and reflective processes.

SLC depends on meaningful collaboration between universities and external stakeholders who provide real-world projects with appropriate scope and complexity. Effective project design requires a careful balance between authenticity and feasibility, tasks must reflect genuine organisational challenges while remaining achievable within academic timescales and resource limits (Domingues et al., 2024; Harris et al., 2022). Institutions often establish dedicated partnership offices or employ industry liaison staff to identify, brief, and support clients. These mechanisms maintain consistency in project quality and ensure ethical engagement and mutual benefit. As Gorman (2018, pp. 158–159) observes, authentic, integrative learning environments emerge when academic, professional, and community partners collaborate to design experiences that link theoretical insight with real-world application.

The Structure Layer provides the foundation upon which the iterative processes of SLC can unfold. By, aligning institutional policies curricular frameworks, and stakeholder relationships, it establishes the enabling conditions for authentic, reflective, and collaborative learning. This structure not only ensures consistency and academic integrity but also embeds SLC within the university's broader mission of employability, partnership, and societal impact. In doing so, it situates SLC as a sustainable, scalable model of experiential learning that connects institutional strategy with pedagogical innovation.

Process Layer: Dynamics of Learning and Interaction

The Process Layer captures how learning unfolds within these conditions, it represents the lived and iterative experience of SLC, the dynamic interplay of learning that occurs through action, reflection, and interaction among multiple stakeholders. Unlike internships or traditional placements, where learning unfolds primarily within organisational hierarchies, SLC positions the student consultant at the centre of a triadic learning ecosystem linking clients, mentors, and peers. This dynamic is illustrated in Figure 1, which reinterprets Kolb's (1984) experiential learning cycle as a set of three distinct yet interconnected learning spirals radiating from the student consultant. Each spiral embodies the continuous process of Concrete Experience, Reflective Observation, Abstract Conceptualisation, and Active Experimentation within a specific relational context.

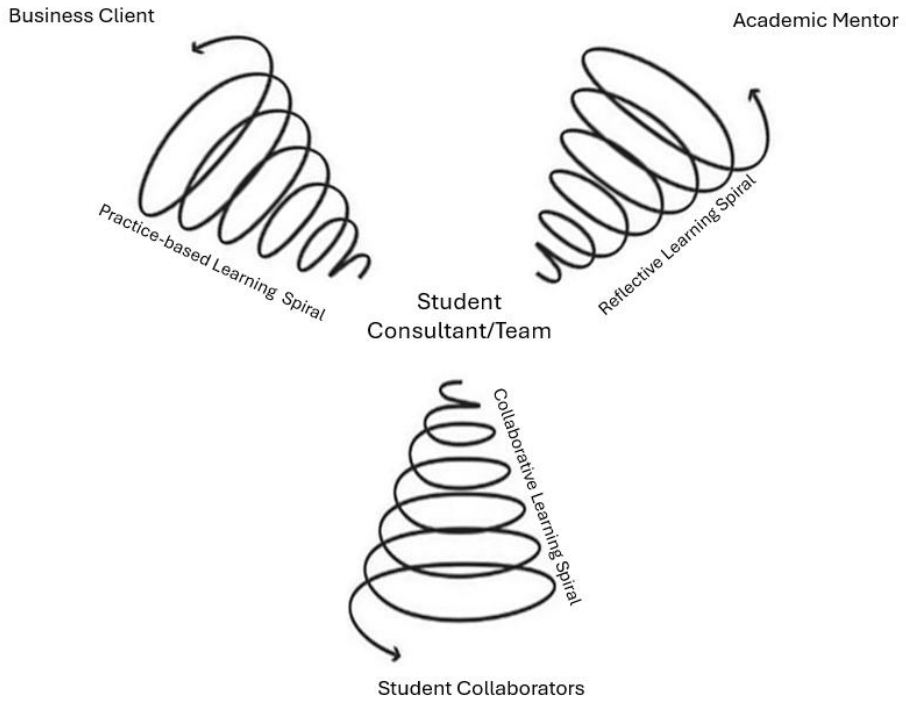

Figure 1. Learning Spirals in Student-Led Consultancy (Source: Authors own work)

The figure conceptualises Student-Led Consultancy as a multi-stakeholder learning architecture comprising three independent but interconnected spirals radiating from the student consultant or team. Each spiral represents a continuous learning relationship with a key stakeholder – clients, mentors, and peers – corresponding respectively to practice-based, reflective, and collaborative learning. Collectively, the spirals depict SLC's multi-layered process of iterative engagement, reflection, and application through which knowledge, skills, and identity evolve across multiple experiential cycles.

The Student–Client spiral represents practice-based learning, where authentic engagement and iterative feedback drive applied understanding and professional confidence. Students work with clients to clarify project briefs, gather data, and develop actionable recommendations. Each client interaction constitutes a mini experiential cycle that enhances consultancy competence, professional judgement, and communication skills (Canziani and Tullar, 2017; Ford et al., 2023). The Student-Mentor spiral reflects guided reflection and theoretical integration, highlighting the role of academic supervision in linking experience to disciplinary knowledge and ethical awareness. Through ongoing mentorship, students are encouraged to interrogate their decisions and analytical frameworks, an iterative process consistent with Schön's (1992) notion of reflection-in-action. Early supervision often provides directive support to frame

problems and design methods, while later engagement promotes autonomy, mirroring Vygotsky's (1978) concept of scaffolding. This ensures that learning remains conceptually rigorous rather than purely experiential. The Student–Peer spiral represents collaborative and social learning, where students co-construct knowledge through dialogue, critique, and shared problem-solving. Within teams, they exchange perspectives, challenge assumptions, and build collective insights that reinforce reflective practice and creativity. These interactions cultivate communities of practice (Wenger, 1998) in which learning arises through participation, negotiation, and mutual accountability. Peer collaboration also nurtures resilience and emotional intelligence as students navigate teamwork dynamics, leadership roles, and collective decision-making (He et al., 2023).

Together, the three spirals demonstrate that SLC extends experiential learning beyond an individual cognitive process into a socially mediated, multi-stakeholder architecture of learning. The model visualises how reflective practice, professional engagement, and collaboration intersect to generate compound learning effects; students deepen understanding, refine professional identity, and integrate theory and practice through continuous stakeholder feedback. The resulting triadic system of reciprocal learning illustrates how SLC operationalises experiential education as a collective and relational process, transforming Kolb's (1984) individual learning cycle into an iterative, outward-flowing network that underpins the Process Layer of the SPO framework.

Outcome Layer: Reflective Learning and Multi-Stakeholder Impact

The Outcome Layer reflects the cumulative effects of these processes, it encapsulates the results that emerge from the iterative processes represented in the three learning spirals of SLC. These outcomes are not merely the by-products of experience but the manifestations of learning-in-action – the integration of applied practice, critical reflection, and collaborative engagement. Each spiral contributes uniquely to this collective learning ecology, producing outcomes that benefit students, clients, and institutions in complementary ways (Domingues et al., 2024; Ford et al., 2023).

Participation in SLC initiates a significant shift in students' learning orientation, from knowledge acquisition toward knowledge application and professional identity formation. Through the Student–Client spiral, students develop applied competence by analysing complex, real-world problems, translating disciplinary theories into practical recommendations, and adapting to client feedback (Ford et al., 2023; Thompson and Tumu, 2020). The Student–Mentor spiral reinforces reflective depth and theoretical integration, allowing students to interrogate practice through structured reflection and supervisory dialogue (Schön, 1992; Kolb, 1984). Meanwhile, the Student–Peer spiral cultivates collaborative and interpersonal capacity, enhancing teamwork, communication, and empathy through collective problem-solving (He et al., 2023; Lycko and Galanakis, 2021). Together, these three spirals generate a holistic and transformative

form of learning that extends beyond employability to include reflective capability, professional confidence, and identity reconstruction (Jackson and Wilton, 2017; O'Leary, 2015). Students not only learn to apply theory but also to think critically, act autonomously, and reflect adaptively, key attributes for success in volatile, uncertain, complex, and ambiguous (VUCA) environments (Seow et al., 2019). This finding reinforces earlier claims that deep learning and employability emerge most effectively when experiential models integrate reflection and autonomy (O'Leary, 2017; Helyer and Lee, 2014).

For clients, engagement with SLC transcends the transactional nature of traditional consultancy; it becomes a collaborative knowledge exchange that enhances organisational learning (Domingues et al., 2024). The Student–Client spiral encourages a reflective dialogue where students' analytical perspectives prompt clients to reconsider entrenched assumptions and explore new approaches (Ford et al., 2023). The process also facilitates a two-way transfer of insight, students gain professional awareness and contextual knowledge, while clients access innovative and research-informed thinking at minimal cost (Harris et al., 2022; Emblen-Perry and Murphy, 2023). As Domingues et al. (2024) observe, structured student–client collaborations can strengthen innovation capacity within organisations, demonstrating that experiential learning in consultancy contexts benefits both learners and enterprises. This reciprocal value creation is central to the SLC model, aligning with broader arguments that work-based learning enhances stakeholder partnerships and contributes to regional knowledge ecosystems (Helyer and Lee, 2014; Gorman, 2018).

At the institutional level, SLC exemplifies how higher education can integrate teaching, research, and engagement to achieve pedagogical and societal impact (Helyer and Lee, 2014; Domingues et al., 2024). The triadic structure – linking students, clients, and mentors – enables universities to embed authentic practice within formal learning, thus aligning curriculum with employability and impact agendas (Jackson and Wilton, 2017; O'Leary, 2017). Through reflection logs, client feedback, and mentor supervision, SLC also produces valuable evidence for pedagogical scholarship and continuous improvement (Harris et al., 2022; Emblen-Perry and Murphy, 2023). Moreover, SLC supports universities' civic and regional missions by fostering collaboration with local enterprises and communities (Ford et al., 2023; Domingues et al., 2024). In doing so, it redefines the university as a learning partner and catalyst for innovation, consistent with the aims of Higher Education to advance work-integrated and impact-driven education.

The outcomes arising from the three learning spirals confirm that SLC is not simply an applied learning exercise but a transformative, multi-level educational process. At the student level, it cultivates professional identity, reflective capability, and adaptive expertise; at the client level, it promotes reciprocal learning and organisational reflection; and at the institutional level, it strengthens integration, relevance, and societal impact.

Collectively, these outcomes demonstrate that SLC operationalises experiential learning as a co-created, socially embedded, and outcomes-driven practice – realising the full potential of the SPO framework.

Discussion

The conceptualisation of SLC as a triadic system of learning spirals offers a significant development in the theory and practice of experiential and work-based learning. Building on Kolb's (1984) experiential learning theory, Schön's (1992) notion of the reflective practitioner, and Wenger's (1998) concept of communities of practice, the proposed model reframes learning not as a linear or individual process but as a relational and iterative architecture. It positions students as active consultants at the centre of three dynamic spirals of engagement – with clients, mentors, and peers – each representing a distinct yet interconnected mode of learning.

Kolb's (1984) experiential learning cycle remains foundational in higher education, framing learning as a four-stage process of Concrete Experience, Reflective Observation, Abstract Conceptualisation, and Active Experimentation. However, the linearity and individualism of Kolb's original model have been critiqued for underplaying the social and relational dimensions of learning (Beard and Wilson, 2018; Jackson and Wilton, 2017). The triadic spiral model addresses this limitation by transforming Kolb's cycle into a multi-stakeholder, outward-expanding system.

Each spiral in SLC embodies the experiential stages while embedding them within a social context: (1) The Student-Client spiral operationalises Kolb's Concrete Experience and Active Experimentation through authentic client engagement and project delivery (Ford et al., 2023); (2) The Student-Mentor spiral foregrounds Reflective Observation and Abstract Conceptualisation, as mentors scaffold reflection and connect experience to theory (Schön, 1992); (3) The Student-Peer spiral bridges all four stages through collaborative sense-making and shared adaptation (He et al., 2023). By interlinking these spirals, the model creates a learning ecosystem rather than a singular reflective loop, demonstrating that experiential learning in higher education is both individual and collectively constructed through dialogue, feedback, and co-creation. This relational interpretation resonates with contemporary work-based learning paradigms that emphasise collaboration and iterative engagement as drivers of transformation (Helyer and Lee, 2014; Domingues et al., 2024).

Schön's (1992) concept of the reflective practitioner emphasises the iterative process of thinking within and after action. The SLC model operationalises this through the Student–Mentor spiral, where guided reflection transforms experience into professional judgment. Unlike conventional internships, where reflection is often retrospective, SLC embeds reflection-in-action as a continuous cycle sustained by mentorship and peer

dialogue. The model also deepens the emotional and identity-related aspects of reflection. As students oscillate between action and conceptualisation across spirals, they internalise new ways of seeing themselves as capable, ethical professionals (Agboma and Govender, under review; O'Leary, 2015; Jackson and Wilton, 2017). This process represents what Kegan (2000) terms transformative learning, a restructuring of meaning systems rather than a mere accumulation of skills. The triadic structure ensures that such transformation is socially grounded; mentors provide intellectual and emotional scaffolding, clients supply authentic contexts for action, and peers offer a safe space for co-reflection and challenge. Thus, the reflective outcomes observed in SLC demonstrate how structured autonomy can balance independence with institutional support, producing graduates who are both critically self-aware and professionally adaptable.

From Wenger's (1998) perspective, learning occurs through participation in communities of practice, networks in which identity and competence develop through engagement with others. The triadic spiral model extends this idea by conceptualising SLC as a micro-community of practice, linking students, mentors, and clients in sustained collaboration. Within this community: (1) Knowledge is co-constructed through dialogue and iterative problem-solving (Lycko and Galanakis, 2021); (2) Students acquire the tacit norms and communicative competencies of consultancy work; (3) Reflection becomes collective, as meaning is negotiated rather than imposed. This social dimension distinguishes SLC from more individualised experiential formats such as internships, where learning is often shaped by the organisational hierarchy (Hora et al., 2019). Instead, SLC creates a horizontal learning space characterised by mutual accountability and shared inquiry, qualities that align with calls for higher education to cultivate collaborative professionalism (Harris et al., 2022; Ford et al., 2023).

By visualising SLC as three outward spirals rather than a closed loop, the model contributes to theory in two major ways. First, it redefines experiential learning as an open, networked, and socially mediated process, thereby extending Kolb's framework to contemporary higher education contexts that prioritise interdisciplinarity and collaboration. Second, it bridges experiential learning theory with reflective and social learning paradigms, demonstrating how learning spirals can capture both the individual transformation and collective knowledge creation that occur in consultancy-based education. Pedagogically, the triadic model provides educators with a structured yet flexible template for designing consultancy modules. It clarifies how different learning relationships produce complementary outcomes and suggests points for intervention – mentorship for reflective depth, peer collaboration for social resilience, and client interaction for applied competence (Helyer and Lee, 2014; O'Leary, 2017). As such, it operationalises what Barnett (2000) calls supercomplex learning: preparing students to act with confidence and judgment amid uncertainty.

Design principles for student-led consultancy

Taken together, these theoretical reinterpretations create the conditions for translating the model from explanation into design. Drawing on the SPO framework and prior work on experiential and work-based learning partnerships (Domingues et al., 2024; Gorman, 2018; Helyer and Lee, 2014), five design principles can guide the design, delivery, and evaluation of student-led consultancy in higher education:

1. Structured autonomy should be deliberately designed, balancing student responsibility for problem definition and delivery with clear academic scaffolding, feedback cycles, and assessment criteria.
2. Triadic learning orchestration requires programmes to purposefully structure student–client, student–mentor, and student–peer interactions, recognising that each relationship supports distinct learning mechanisms.
3. Assessment alignment should integrate applied outputs (e.g. consultancy reports), reflective evidence (e.g. journals or portfolios), and relational competence (e.g. peer and client feedback) to capture the full learning ecology of SLC.
4. Reciprocal value design necessitates that projects are scoped to generate meaningful benefit for clients and institutions, ensuring SLC operates as a partnership model rather than a unidirectional learning exercise.
5. Institutional embedding is essential for sustainability, positioning SLC as a recognised curricular model supported by partnership governance, quality assurance, and workload recognition.

Building on the SPO framework, future research could examine how students move between the three learning spirals over time and how different configurations of structure and process shape learning outcomes. Comparative studies across disciplines, institutional types, and national systems could test the framework's transferability, including within further education and apprenticeship-oriented provision. Longitudinal research may also explore how participation in student-led consultancy influences graduates' professional identity, ethical judgement, and capacity for reflective practice beyond formal education.

Conclusion

The triadic spiral model contributes to experiential learning theory by reframing Kolb's cycle as a socially embedded and relational process. Pedagogically, it offers a model of structured autonomy that balances independence with academic guidance. Practically, it demonstrates how student-led consultancy can integrate employability, reflection, and impact within a single pedagogical architecture. In doing so, the model illustrates how

experiential learning can evolve from an individual reflective act into a multi-stakeholder, generative system of knowledge and practice.

At a theoretical level, this conceptualisation extends experiential learning theory beyond its traditional individual orientation. The triadic spiral model transforms Kolb's closed learning loop into an open, relational, and multi-directional system, aligning with Schön's (1992) reflection-in-action and Wenger's (1998) communities of practice. It offers a framework for understanding how learning becomes distributed across stakeholders, creating a dynamic interplay between theory and practice. This view of learning as socially situated and continually adaptive resonates with Barnett's (2000) notion of supercomplexity in higher education, where students must navigate uncertainty through reflection, dialogue, and collaboration. Pedagogically, the model contributes to the design of authentic, integrative learning environments (Gorman, 2018) that connect academic study with professional and civic engagement. It clarifies how different stakeholder relationships produce complementary learning outcomes – applied competence through client engagement, reflective understanding through academic mentorship, and collaborative resilience through peer interaction. In doing so, it operationalises structured autonomy (O'Leary, 2017), a pedagogical balance between student independence and academic scaffolding. Such structures equip learners with the adaptive, reflective, and relational skills needed to thrive in complex professional contexts.

From an institutional perspective, SLC exemplifies how universities can integrate teaching, research, and external engagement to achieve impact. By situating consultancy projects within the formal curriculum, institutions advance employability, knowledge exchange, and regional development simultaneously. The model therefore supports the transition from university as a knowledge provider to university as a learning partner, co-producing value with industry and community stakeholders. Beyond the university context, the SPO framework may also be relevant to further education and skills-focused provision, including apprenticeship programmes that incorporate consultancy-style or negotiated projects within on-programme delivery or end-point assessment.

Future research should explore the empirical dimensions of this conceptual model, particularly how students experience movement between the three spirals and how these interactions shape identity, emotional resilience, and ethical decision-making. Comparative studies could investigate how SLC operates across disciplines and cultural contexts, examining its scalability and adaptability in different higher education systems. There is also scope for longitudinal research to assess how participation in SLC influences graduates' career trajectories and ongoing professional learning.

SLC invites institutions to reconsider the boundaries between learning, work, and research. By positioning students as consultants and collaborators, the model advances

a vision of higher education that is not only work-integrated but also societally responsive – a space where reflective, practice-based inquiry contributes simultaneously to personal growth, organisational innovation, and civic good.

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