

Research and Scholarship Quarterly

Issue 12

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**RCL Learning and Teaching Conference 2025
Conference Proceedings**



**Research &
Scholarship
at RCL**

► RCL Learning and Teaching Conference 2025: Introduction to conference proceedings

Welcome to the 12th issue of the Research and Scholarship Quarterly!

We are delighted to share with you this special issue presenting the conference proceedings from the Regent College London (RCL) Learning and Teaching Conference 2025. Held in person at one of RCL's London campuses on 25 April 2025, the event brought together colleagues from across the College and its partner institutions for a day of collaboration, insight and inspiration.

The annual RCL Learning and Teaching Conference brings together academic staff, student support teams and external partners to showcase and share best practices in learning, teaching and assessment. With an emphasis on enhancing student experience and outcomes, the conference reflects RCL's commitment to a teaching-focused, scholarship-engaged and research-informed culture. This year's theme – **"Inspire and Engage: Showcasing our RCL Pedagogies and Practices"** – highlighted the importance of learner-centred approaches as the foundation of meaningful, impactful education.

This issue of the RSQ features conference papers across three key themes: **Pedagogy and Practice, Student Engagement and Support** and **Technology and Innovation in Learning**. These themes reflect the breadth and depth of the conference discussions. From inclusive, hands-on teaching strategies and reflective practice, and the importance of emotional and cultural support in learning, to the integration of AI and digital tools – each paper offers insight into how we can better serve an increasingly diverse student body. All papers included in this issue have been authored by staff from RCL, showcasing the knowledge, creativity and commitment of colleagues across the institution.

In the face of sector-wide challenges – including increased use of technology and AI, mental health concerns, financial pressures, global uncertainty and increasing demands for flexibility and employability – RCL continues to innovate with purpose. Like many higher education institutions, RCL recognises the need for holistic, forward-facing strategies that respond to the emerging needs of a diverse student population. The adoption of the "Prepare, Collaborate, Consolidate" (PCC) teaching method exemplifies this commitment, encouraging students to take ownership of their learning and to engage more deeply with course content.

This issue also reflects RCL's commitment to national priorities, including the Office for Students' (OfS) Conditions of Registration, the Teaching Excellence Framework (TEF) and the UK Professional Standards Framework (PSF), which emphasise inclusion and impact. These frameworks reinforce the importance of delivering high-quality education with lasting benefits for students. The conference papers showcased herein highlight RCL's pedagogical strengths and reaffirm our mission to provide flexible higher education that empowers learners from all backgrounds to thrive academically, personally and professionally.

May this Quarterly continue to inspire you as researchers and scholars!

Dr Anna Wharton, Editor

Paul Williams, Director of Scholarship and Research

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► PCC and me: Rationale for and implementation of “Prepare, Collaborate, Consolidate”

Chris Baldwin, Director of Digital Academic Strategy

Regent College London (RCL) has recently implemented our PCC – “Prepare, Collaborate, Consolidate” – approach to content. This paper will dive into the underlying pedagogical models that we are utilising to help us as teachers and content developers better understand how to guide our students to success using this approach. These models include the SAMR and TPACK frameworks of digital learning as well as concepts such as activating schemata, spaced repetition and backwash. This paper explores how these models and strategies can be used to improve student outcomes with practical examples related to teaching and writing module content.

Structure of PCC

In the PCC approach, the “Prepare” stage provides students with a reading, video or other activity to engage with before the lesson. “Collaborate” is the lesson itself, with interactive discussions and activities throughout, moving away from the traditional lecture and seminar modes to merge the two in a more engaging session. The “Consolidate” phase, similar to Prepare, involves readings, videos and quizzes to help students synthesise learning following the lesson. This format is repeated each week of the semester. Content for PCC is created within the Learning Management System (LMS), in this case Canvas. This allows us to move away from the LMS as a file storage tool, and to leverage the pedagogical affordances of the LMS to deliver learning enhanced outcomes for each session and for the module as a whole.

Digital pedagogies: SAMR and TPACK

RCL's PCC content has been underpinned by two particular digital pedagogies: SAMR and TPACK.

SAMR: The Substitution, Augmentation, Modification and Redefinition (SAMR) model was developed by Dr Ruben Puentedura to support thinking around the introduction of digital technologies into education.

Figure 1 below defines the four SAMR levels – substitution, augmentation, modification and redefinition.

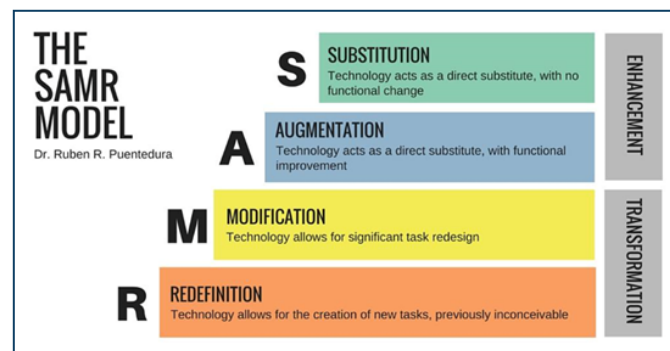


Figure 1: SAMR Model

SAMR provides a way to think about the adoption of technology in education. Using the LMS Canvas to store and deliver PowerPoint presentations is essentially substituting PowerPoint for books and Canvas for a bookshelf. Indeed, lessons that do not leverage the PowerPoint as an EdTech tool and Canvas as a Virtual Learning Environment could easily be taught without technology, with no difference in the outcomes.

It is important to note that there is nothing wrong with substitution in general, but SAMR allows us to more fully integrate and utilise technology in education. Indeed, PCC is about moving from Substitution toward Augmentation, in which “technology acts as a direct substitute, *with functional improvement*.” That is, by using the quizzes built into Canvas and accessing the built-in learning analytics, tools are opened up to teachers and students that simply do not exist in a paper-based world.

TPACK: The Technology, Pedagogy and Content Knowledge (TPACK) model is a way of thinking about our knowledge as teachers. Knowledge exists in three domains in this model:

- **Technological knowledge:** How to use the EdTech tools we already have such as Canvas, MS PowerPoint and MS Teams.

- **Pedagogical knowledge:** How to deliver the learning outcomes in class through classroom management and teaching skills, for example.
- **Content knowledge:** Having expert knowledge in our specialist domains – business, law, engineering, computing, health or sports science.

The TPACK model in Figure 2 below demonstrates how these domains overlap.

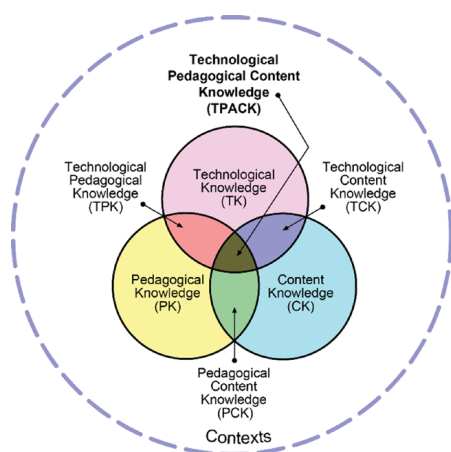


Figure 2: TPACK Model

TPACK helps us to think about the knowledge we already have while PCC helps us to deliver that content knowledge through sound pedagogical practice alongside effective technological application.

How PCC helps learning

A number of concepts from cognitive psychology are built into the PCC methodology to support students to learn more effectively. The Prepare stage of PCC aims to lower students' affective filters, recognising that when students are exposed to topics ahead of time, they can prepare better, which can decrease anxiety and allow them to learn more effectively. Activating schemata, whereby students are exposed to a concept gradually and over time across the three phases of PCC, builds engagement, understanding and retention of concepts.

Additionally, spaced repetition allows for students to be shown concepts repeatedly over a period of time; this is echoed in PCC as students are initially exposed to a concept in Prepare, then in Collaborate, and again in

Consolidate. Finally, PCC content is also designed to teach the full set of learning outcomes which will be assessed. This takes on board the concept of backwash, which when used appropriately, ensures that assessments align with and measure all target outcomes.

Feedback on PCC

Following the implementation of PCC, we asked staff and students for feedback and analysed usage on Canvas. Overall, the feedback was positive with comments suggesting that largely materials are better; that there is more structure to content and teaching is underpinned by a more solid pedagogical approach; and that the Office for Students (OfS) requirement for a consistent, standardised approach is being met. Negative feedback included issues around the quality of some materials and challenges around getting students to engage. Data from Canvas was particularly interesting, showing that since PCC was implemented, student engagement (as measured by individual students accessing Canvas 20 times per month or more) has doubled.

PCC going forward

As use of the PCC model at RCL continues to grow, there are several practical strategies that can help maximise its impact. Lecturers can encourage students to regularly engage with the Prepare and Consolidate sections on the LMS, and consider introducing a points-based system to boost participation. At the start of each lesson, teachers should briefly review – but not complete – the Prepare task with students. Similarly, lecturers should revisit the Consolidate task at the end of the lesson to reinforce learning.

Canvas data can also be a valuable tool to review quiz and module-level analytics in order to monitor student engagement, note challenging quiz questions and identify students who may benefit from additional support. RCL staff are encouraged to explore the internal resource site for practical tips and ideas on implementing the PCC model effectively. Finally, lecturers may feel free to reach out to the author of this paper to share their feedback and insights on PCC.

► Implementing critical pedagogy through analytical frameworks: Case studies, outliers and wicked problems

Dr Tricia Tikasingh, Associate Provost

Evolving demands of the current and future workforce necessitate a shift in pedagogical approaches to cultivate analytical, innovative and collaborative skills. According to a recent Future of Jobs [report](#), the most in-demand skills for 2025-2030 are going to be analytical thinking, resilience, flexibility and agility, leadership, and social influence. Appropriate pedagogical approaches are therefore needed to align transferable skills development with the needs of employers and enterprise.

Paulo Freire's [critical pedagogy](#) encourages critical inquiry and facilitates meaningful student participation through questioning accepted norms and structures, engaging students in dialogic learning, experiential learning and reflective practice. Pedagogical approaches can be applied in different ways across academic levels and can be scaffolded in such a way that they are formative and developmental, confidence-building, instructive and transformative. In my own teaching practice, I have experimented with embedding theoretical frameworks to support critical exploration and discussion of content at both undergraduate and postgraduate level.

In this paper, I will share one such framework - Cultural-Historical Activity Theory (CHAT). I outline how I applied CHAT in pedagogy, highlighting its potential to challenge historical hegemonic structures, to engage students in wider socio-cultural perspectives and to cultivate the analytical thinking required for the workplace.

Cultural-Historical Activity Theory

Developed from the work of Vygotsky and [expanded](#) by Yrjö Engeström, CHAT provides a systematic and multi-dimensional lens to examine complex human activity, and expose the contradictions or tensions embedded within the context. As both a theoretical thinking tool and an interventionist methodology, CHAT fosters critical consciousness, collective inquiry and transformative

learning. Figure 1 shows the CHAT framework of analysis as developed by [Engeström](#).

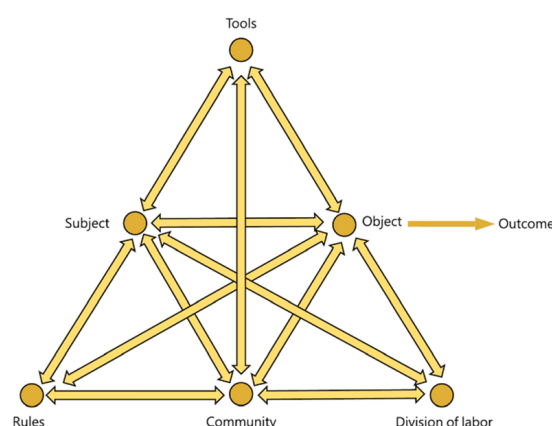


Figure 1: CHAT framework of analysis

The key principles of CHAT include the activity system, the multi-voiced system and contradictions. Through the activity system, activity is mediated by tools or artefacts, by rules (societal/regulatory/governance/organisational), by a community and by divisions of labour within the activity system. The nature of activity is considered within the context of time and historicity. The multi-voiced system refers to the individual and collective voices and perspectives, which are represented and contribute to the activity being considered. Contradictions are the tensions within systems, which serve as catalysts for change and expansive learning.

CHAT as theoretical thinking tool

By understanding the dimensions of a specific activity, CHAT encourages learners to critically examine activities or problems within broader social, historical, cultural and geo-political structures and to develop the capacity for problem-solving.

CHAT enables students to interrogate power dynamics and challenge normalised practices within the domain of

activity. Researchers have utilised the CHAT framework of analysis in a range of contexts including education, agriculture, international development, healthcare, human resource management and more. Its use in teaching and learning can therefore be interdisciplinary.

Through CHAT's analytical lens, students move beyond passive acceptance of societal structures to engage in critical inquiry. This participatory approach fosters student agency whereby learners contribute to knowledge production rather than knowledge consumption; promotes collaborative learning whereby dialogue and collective inquiry replace hierarchical knowledge transmission; and encourages socio-cultural awareness as students recognise how historical forces shape contemporary realities.

CHAT as interventionist methodology

CHAT's interventionist methodology is another way of employing the framework in the classroom to create opportunities for expansive learning, which enable students to actively reshape their knowledge through cycles of questioning, reflection and action. Figure 2 shows the expansive learning cycle.

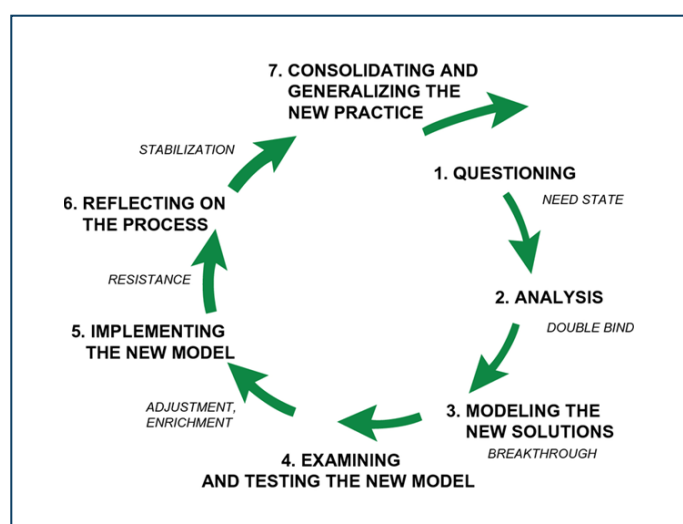


Figure 2: Expansive learning cycle

Another practical application of CHAT is Engeström's Change Laboratory, which facilitates collaborative reflection and problem solving. Figure 3 shows a representation of a Change Laboratory.

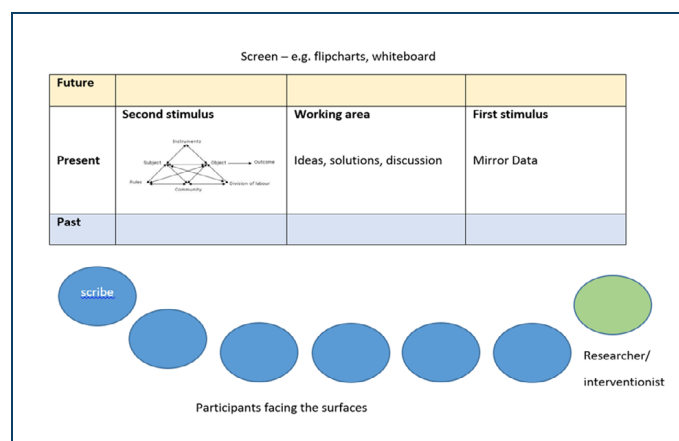


Figure 3: Change Laboratory representation

Interventions such as Change Laboratories can transform learning environments into dynamic, inclusive, culturally- and historically-aware spaces that equip students with the skills needed to navigate complex global challenges.

CHAT in teaching and learning

To provide an example of how CHAT can be applied within teaching and learning, I refer to a case in which it was implemented within a postgraduate course, an MA Global Black Studies, Decolonisation and Social Justice. In developing the curriculum for the MA course, one assessment was designed to be an outlier case study and was situated within the environment of a *wicked problem*.

Case studies are useful for exploring the “how” and “why” of a problem and can employ both qualitative and quantitative data and evidence. Robert Yin's 2009 book defines a case study as “an empirical inquiry about a contemporary phenomenon (e.g., a ‘case’), set within its real-world context – especially when the boundaries between phenomenon and context are not clearly evident”.

In this example of using CHAT in a particular course, an outlier case study was chosen for its unique context and learning opportunity. Malcolm Gladwell's 2008 book understands an outlier as something that is situated away from or classed differently from the main or related body, and a statistical observation that is markedly different in value from the others in the sample. Outliers may enable researchers to observe and apply practice and to improve

understanding of current practice. Outliers also have unique strategies which are grounded in the local environment and can offer an opportunity to highlight strengths which can be used constructively.

Wicked problems can be found in many areas of society including the public sector and international development. They are determined by their level of complexity, uniqueness, relentlessness and interconnectedness of multiple problems across several domains.

Introducing students to CHAT

Students on the abovementioned MA Global Black Studies, Decolonisation and Social Justice were introduced to CHAT in session two of a particular module, and an exemplar case study was discussed within the parameters of the CHAT framework. Discussions were linked to CHAT so that students could gain confidence in employing it in their own critical exploration of their chosen outlier case study. Formative tasks included in-class discussions and group work which provided mini, informal Change Laboratory opportunities.

The final summative assessment of the module was a critical exploration of an outlier case study from a relevant region/diaspora. Students were encouraged to use CHAT as a conceptual tool to critically unpick the outlier case study as the activity system. They were also encouraged to use CHAT in combination with other relevant theoretical frameworks which they explored in other modules related to research methods, epistemology or ontology. My view is that the layering of conceptual lenses can potentially sharpen analysis or open up new perspectives, insights or solutions.

The teaching team decided to make the final session of the module a Change Laboratory session. The classroom arrangement was set up in a circle, and students were free to occupy the space as they liked, some choosing to sit on the floor. This was deliberate in order to reduce the notion of “power” as students and tutors became co-creators and co-researchers in this exercise. Although this varied from the prescribed Change Laboratory setup in the above Figure 3, the approach worked very well.

The activity system to be explored in the Change Laboratory was the module itself, which was delivered for the first time. This provided an opportunity to receive feedback through the lens of tensions which existed in the activity system. The parameters of the activity system were discussed with engagement noted through a whiteboard and sticky notes. The outcome was transformative and expansive learning for tutors and students, and developmental feedback for future module delivery and for use of CHAT in this way. Students and tutors found the CHAT framework useful and appropriate for the nature of the course overall.

Concluding thoughts

As the future workforce increasingly demands analytical thinking, pedagogical approaches must evolve to cultivate critical, collaborative and transformative competencies. Cultural-Historical Activity Theory offers an example of a multidimensional framework that fosters critical inquiry and analysis. Through its integration in educational practice, CHAT can enhance problem-solving capabilities, improve situated analysis within socio-cultural and historical contexts, and therefore equip students with the tools necessary to address real-world complexities.



► From classroom tensions to boardrooms and clinical readiness: Paradox-based learning as an active learning strategy for transitioning learners into authentic leaders

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The world of work is often described as turbulent, with stakeholder expectations often diverging from one another. With limited resources to fulfil the expectations of all stakeholders, leaders are often confronted with multidimensional and conflicting tensions. In an attempt to balance stakeholder interests, leaders often have to navigate contradictory demands, such as the need to be innovative while maintaining operational efficiency, and the need to uphold ethical standards while pursuing growth targets.

Navigating opposing demands has become a defining characteristic of modern leadership. As such, amidst risks around stakeholder activism, technological transformation and social expectations, the ability to lead authentically with integrity and clarity is a key behavioural resource that can enable modern organisations to constructively navigate the changing world of work. Consequently, the world of work demands authentic leaders – individuals who are self-aware, morally grounded and capable of fostering trust and meaning amidst complexity. This paper hears from multiple authors as it explores authentic leadership through the lenses of business, engineering and healthcare.

Challenges of actualising authentic leadership

Authentic leadership is not a straightforward phenomenon. Indeed, leading from one's authentic self necessitates that the leader is capable of being transparent about their core values and decisions, even when doing so risks exposing their vulnerability. In this regard, to be authentic in one's leadership practices requires that the leader is able to reconcile personal convictions with organisational constraints; balance openness with authority; and navigate

stakeholder demands while being true to their internal moral compass.

While these tensions reflect the lived realities of many leaders, they are contradictory, and the inability to competently navigate them can leave leaders feeling uncertain and overwhelmed in their leadership responsibilities. Without the tools to engage with these tensions constructively, even the most well-intentioned leaders may default to defensiveness, superficial consensus-building or disengagement.

Introducing a paradox-based approach to authentic leadership development

Although business schools across UK universities have sought to integrate leadership development into their undergraduate and postgraduate programmes curriculums, often modules and assessment practices embedded within these programmes are structured around linear models that emphasise clear-cut solutions to business problems. Despite potential, a core shortcoming of these approaches to leadership development is that they do not take into consideration the competencies that are crucial for navigating real-world business challenges whose solutions are not necessarily clear-cut.

To address this gap in leadership development pedagogy, we introduce an original framework for authentic leadership development called the *paradox-based approach to authentic leadership development*. In this framework, we highlight the need for programmes, such as those in business schools, to integrate into their curriculum of undergraduate and postgraduate programmes learning activities that are intentionally aimed at encouraging

learners to constructively engage in conflicting demands, such as short-term versus long-term thinking, autonomy versus collaboration or exploration versus exploitation.

Creating learning environments that require students to grapple with competing priorities provides them opportunities to realise that traditional binary forms of thinking are often inadequate. In this case, exposure to contradictory tensions has the potential to strengthen self-awareness, and disrupt a cognitive tendency to choose one side at the expense of the other. As self-awareness increases, learners are more likely to seek alternative approaches to navigating these tensions, which can lead to the nurture of cognitive complexity – the ability to recognise, differentiate and integrate multiple perspectives or demands simultaneously.

Instead of approaching problems as having one correct answer, learners begin to see how conflicting demands are often connected and must be balanced over time. Learners become more likely to adopt the use of a “both/and” logical form of thinking as they recognise that opposing forces are not mutually exclusive, but rather mutually reinforcing over time.

Authentic leadership, creativity and radical innovation in engineering design

Universities and training centres play a vital role in supporting engineering students to embed authentic leadership within their vocational practices. This can be done through a paradox-based learning approach. When engineering students are given opportunities to engage with and navigate competing demands, they are better prepared for a modern-day workplace.

In a work environment, authentic leadership of complex engineering design projects can allow for greater creative thinking as it fosters an atmosphere of safety and trust, encouraging honesty with oneself, one's own standards and with others. In such an environment, engineers may feel more able to share creative ideas which may challenge the status quo, thereby fostering progress in product and systems design. When openness and integrity are

prioritised by authentic leaders, engineers have space to consider new ways of thinking and to undertake original projects, again, allowing for enhanced creativity in the field.

Additionally, transparency in decision-making can strengthen the legitimacy of decisions made by authentic leaders regarding the human, ethical and cooperative aspects of innovative work. In this way, engineers may be encouraged to better align their technical choices with societal and environmental needs, leading to the development of increasingly novel and eco-friendly inventions.

When team members can rely on these transparent, ethical decisions, they are better prepared to constructively engage with uncertainty in their work. Indeed, grappling with uncertainty provides space for healthy risk-taking and enhances potential for novel discovery and radical innovation. Leading with authenticity in the engineering field goes beyond strategy; it is crucial for leading the way in ethical progress-making.

Paradox-based learning in healthcare: Fostering authentic leadership

In their quest to deliver high-quality health services to patients, healthcare professionals often encounter conflicting demands. For example, healthcare professionals encounter situations that demand efficiency while improving quality; prioritise population health while attending to the individual patient needs; and allocate limited resources while safeguarding staff wellbeing. These conflicting tensions are not necessarily issues to be solved, but rather realities to be navigated. Some of these tensions involve life-and-death decisions, making them especially difficult to navigate. To thrive in such environments, these professionals must be equipped with the right mindset to navigate the contradictory demands of the healthcare service sector.

Universities where professionals undergo their training have a moral obligation to equip these professionals with the right mindset and leadership approach to successfully

navigate the contradictory demands that define healthcare practices. This is where the paradox-based approach to authentic leadership development comes in, which asserts that the learning environment should be designed to expose and encourage learners to confront healthcare's inherent contradictory demands. By engaging with dilemmas such as control versus empowerment, standardisation versus personalisation, and efficiency versus empathy, future healthcare professionals learn to balance competing priorities without compromising their core values.

Without straightforward answers, these paradoxes drive learners to reflect on their deeply held assumptions and therefore strengthen learners' self-awareness. This experience helps learners to explore and clarify their own morality by encouraging them to articulate the principles guiding their decisions when values collide. Additionally, learning to hold opposing perspectives on an issue can strengthen a learner's sense of integrity. These outcomes are hallmarks of an authentic leadership grounded in genuineness, ethical conviction and consistency between ones' beliefs and actions.

By engaging with real-world dilemmas in a reflective and structured manner, these authentic learning experiences can motivate learners to normalise complexity and move beyond binary forms of thinking. In leadership modules, for example, learners can be introduced to workshops that challenge them to meet strict efficiency targets on a hospital ward while ensuring each patient receives compassionate, personalised care. Students are encouraged to engage with the paradox of reconciling time pressure with empathy by adjusting workflows to preserve human connection.

By integrating these paradoxical scenarios into curricula through case studies, summative assessments, simulations and facilitated debates, future healthcare professionals have opportunities to engage in critical self-reflection and broaden their cognitive complexity capabilities. When they grapple with opposing yet interdependent goals during their training, they learn to lead with integrity, adaptability

and authenticity in high-stakes situations.

Beyond technical skills: Authenticity as the heart of healthcare pedagogy

In contemporary healthcare practices, it is recognised that the wellbeing of healthcare professionals can significantly impact a patient's responsiveness to healthcare treatment. In this regard, many have sought to identify how best to support the personal and emotional development of healthcare workers. One way to improve this support and enhance authenticity in one's health practices is through the use of effective pedagogy, which plays a critical role in shaping compassionate, ethical and resilient healthcare professionals.

The dominant framework deployed in medical training has consistently emphasised the development of technical skills and knowledge. However, there is growing recognition that authenticity, the ability to align ones' values, beliefs and identity with ones' clinical practice, is critical for improving the effectiveness of healthcare practices. Personal authenticity leads to authentic leadership in the healthcare context, the development of which can be strongly supported in medical training through a paradox-based learning approach. This allows healthcare students to gain experience navigating scenarios of competing demands while considering their own values before arriving in the workplace.

When healthcare professionals in the workplace align their actions with their core moral values, they also foster credibility and reduce patients' concerns about hidden agendas. Credibility strengthens doctor-patient relationships by fostering empathy, transparency and trust, and patients are more likely to share accurate information and adhere to treatment plans when they trust their caregivers. Thus, authenticity in one's healthcare practices can contribute to better health outcomes, patient satisfaction and overall quality of care.

Moreover, authenticity in clinical practice fosters psychological safety by creating environments where healthcare professionals feel secure expressing

themselves without fear of judgement or reprisal. When clinicians act in alignment with their personal and professional values, they signal integrity, transparency and respect – qualities that encourage open communication and mutual trust within healthcare teams. This increased openness can reduce feelings of interpersonal anxiety and promote a culture where individuals are more willing to admit mistakes, seek feedback and support one another – hallmarks of psychologically safe workplaces.

Furthermore, authenticity strengthens a practitioner's sense of identity and purpose, making their work feel personally meaningful rather than merely procedural. This sense of congruence between self and role enhances intrinsic motivation, leading to greater job satisfaction and long-term commitment to the health needs of their patients.

Concluding thoughts

This article explored the significance of authentic leadership for professionals navigating the complex and contradictory demands of modern work environments. Across business, engineering and healthcare contexts, professionals face tensions such as innovation versus

efficiency and standardisation versus personalisation. Traditional pedagogies often fail to prepare learners for such realities, as they prioritise linear problem-solving over integrative thinking.

Therefore, we have introduced a paradox-based approach to authentic leader development, arguing that this approach offers a crucial alternative to developing leaders who can navigate the tensions of the workplace by immersing learners in contradictory scenarios to strengthen their self-awareness and cognitive complexity skills development, both of which are foundational to authentic leadership. We assert that by encouraging learners to engage with paradoxes, they are supported to move away from more binary thinking. We argue that these tensions are transformative as they guide learners to recognise that opposing demands can be mutually reinforcing rather than mutually exclusive. We conclude that embedding paradox-based learning within professional training is vital for cultivating leaders who can balance tensions constructively, and who can foster trust, innovation and resilience in their organisations.



► Meaningful learning through inclusive and active approaches

Vincentia Boham, Programme Leader, School of Business

In a landscape of increasing diversity in higher education (HE), promoting genuine student engagement is ever more vital. This paper asserts that meaningful learning starts with an authentic connection and that approaches to teaching which are informed by inclusion, teamwork and effective engagement can reform classrooms to serve learners better. Constructivist theory and pedagogies such as the relational method underpin intentional strategies – integrating co-creation, addressing learners by name and adapting content to learners' needs – that foster environments where learners feel valued and empowered. This paper explores how these methods and strategies can be better embedded to transform outcomes and student engagement.

Learning through collaboration and connection

Vygotsky's Social Constructivist Theory suggests that learning progresses best when students actively interact with peers and receive guided support. The theory discourages educators from passive and rigid content delivery, to focus on interactive and engaging approaches. This focus on social collaboration strongly aligns with work on relational pedagogy, which places deep connections at the heart of learning. Relational pedagogy speaks to not only the student-teacher relationship, but also student-student connections. Peer interaction can support a learning environment in which learners become comfortable expressing themselves and learning from each other's perspectives. This is especially valuable in settings where diversity, both visible and invisible, can play a role in how learners engage and learn.

Researchers Carmen Werder and colleagues capture this ethos when they state that "We must be in a relationship with each other for learning to happen". This view reinforces a co-creation approach, through which teachers and learners work together to enhance lesson content, assessments or activities. This cooperation equips learners to take ownership of their studies, build

significant academic networks and develop critical thinking and communication skills that disrupt traditional learning. Relational pedagogy and social constructivism lay a foundation for such adaptive and inclusive classrooms as they provide insight into trust and equity, and contribute to learning in a diverse setting.

Connecting through problem-based and adaptive learning

Problem-based learning (PBL) is a learner-centred approach that promotes connection through collaborative, real-world problem solving. By engaging with complex, open-ended scenarios that reflect professional challenges, students take an active role in their learning. This process develops critical thinking and self-led learning, and strengthens relationships in the classroom, leading to a connected and engaging class.

At Regent College London (RCL), PBL is embedded across programme levels to provide relevant, work-based experiences. For example, students might be asked to design an inclusive mentoring activity for peers with diverse needs or to assess a company's financial health using ratio analysis. These scaffolded tasks guide learners through structured problem solving, encouraging cooperation and dialogue. PBL's emphasis on explicit instruction and collaborative learning environments enhances academic skills while reinforcing the positive relationships essential for meaningful learning.

Adaptive teaching complements PBL by responding to learners' individual needs in real time, further deepening connection and meeting students where they are. Rather than following a rigid lesson plan, educators adjust their approach in real time, deciding when to guide, when to challenge and when to focus on co-creative experiences. This responsiveness helps students feel seen, supported and actively involved in shaping their own learning journey. Adaptive teaching is particularly effective in RCL's diverse

classrooms, where learners have various needs and preferences. Indeed, this approach nurtures a learning environment that is inclusive and grounded in authentic connection.

Strategies for engagement and connection

Building an inclusive space for learning must include the modest but fundamental act of calling learners by their given names. Research on student retention and achievement emphasises that even small acts can have a great influence on an individual's sense of belonging. For students who experience marginalisation or originate from mixed cultural settings, being addressed by their preferred name can even induce feelings of safety and inclusion. Such recognition serves a vital role in encouraging a friendly environment.

Implementing strategies such as icebreakers and storytelling can also enhance community building in simple but fun ways. Storytelling generates the opportunity for personal expression and honesty, and supports both educators and learners to connect on a human level. It conveys culturally-relevant learning and teaching into the class, permitting learners to draw on and link their lived experiences with content among peers. Icebreakers may also contribute to building an inclusive space, encouraging learners to share aspirations, knowledge or challenges.

Research shows that using learning techniques such as those above can boost motivation, engagement and academic success. Purposefully designed inclusive classes set the tone for meaningful participation, especially in online or blended settings where building connection needs to be intentional.

Looking ahead: Teaching that connects and endures

As higher education continues to evolve, teaching practices must also adapt to meet the needs of increasingly diverse classrooms. This paper explored adaptive and relational strategies, asserting that meaningful learning starts with connection and engagement. By shifting from more rigid methods to

flexible, evidence-informed pedagogies, educators can create learning environments that support diverse groups of learners to achieve improved outcomes.

At the heart of these strategies lies a commitment to interaction and intentionality. Small, deliberate actions – using students' given names, adapting activities, inviting storytelling or encouraging co-creation – build trust and foster connection. In these ways, learners feel valued and empowered to engage more fully. By revisiting core principles and applying them in responsive ways, educators can design experiences that are inclusive and transformative, where meaningful learning is driven by connection.



► Exploring culturally responsive teaching in UK higher education

Dr Elizabeth Kaplunov, Senior Lecturer, School of Health and Sports Science
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Culturally responsive teaching (CRT) has become increasingly vital in diverse educational environments, yet much of the existing [research](#) focuses on school settings in the US or Europe, and on English as a Second or Other Language (ESOL) learners. This paper discusses a small-scale, mixed-methods study, which sought to close this gap by exploring how CRT is used by lecturers teaching widening participation and international students in a UK higher education (HE) setting.

Motivation and cultural context

This study is underpinned by [Self-Determination Theory](#) which proposes that high-quality intrinsic motivation and long-term academic engagement are increased when three basic psychological needs are met: autonomy, competence and relatedness. The study also understands that culture influences the ways students interpret educational experiences, including how they respond emotionally to learning tasks. The [motivational framework](#) for culturally responsive teaching integrates cultural sensitivity into motivation theory through four key motivational conditions:

- **Establishing Inclusion:** Fostering respect and connection
- **Developing Attitude:** Promoting relevance and choice
- **Enhancing Meaning:** Linking learning to student values
- **Engendering Competence:** Supporting success through culturally aligned teaching

Quantitative insights

The research team adapted a previously validated [US-based CRT](#) survey conducted with ESOL lecturers to a UK HE context, and refined it to 13 items from its original 17. Forty-nine lecturers from diverse disciplines completed the survey, reporting how frequently they used culturally responsive strategies. The results showed high internal consistency (Cronbach's $\alpha = .854$).

Survey respondents' most frequently reported culturally responsive practices were utilising peer tutors and student-led discussions (96%); engaging with students' familial and cultural contexts (94%); and examining materials for culturally appropriate images and themes (92%). The least frequently used practices were exploring student cultures outside class (31.6%); and learning words in students' native languages (31.3%).

A factor analysis identified three factors aligned with three of the four motivational conditions: Establishing Inclusion, Developing Attitude and Enhancing Meaning. Two survey items were removed during analysis due to low factor loadings (the extent to which a variable is associated with a particular underlying factor). Factor loadings are essential for interpreting the results of factor analysis, and help to understand the importance and contribution of each variable to a factor.

Qualitative insights

Nine interviews and one focus group of six people were also conducted to explore the qualitative insights behind the survey results. [Thematic analysis](#) revealed five key themes: importance of CRT, reasons using practices, barriers to implementation, improvement suggestions and future ideas for CRT practices. The researchers used inductive coding without pre-defined categories, and both researchers checked the codes to ensure reliability.

Lecturers generally felt that CRT plays an essential role in enhancing student engagement, particularly through making content more relatable and through promoting inclusive classroom atmospheres. Participants stated that CRT allows them to incorporate diverse student perspectives and to foster respect, connection and understanding across cultural lines. One lecturer remarked that CRT "helps students understand and relate to the context and the concept of what you're teaching", suggesting it is a powerful way to form connections.

The data also shed light on why certain CRT practices were used more than others. Lecturers highlighted the value of getting to know students' families and backgrounds as a strategy for building rapport and trust. They also frequently encouraged students to use cross-cultural comparisons to promote critical thinking, and worked to ensure that classroom content and images were inclusive and culturally appropriate as an important step toward creating a welcoming learning environment.

Barriers and lecturer suggestions

While their enthusiasm for CRT was clear, lecturers also described a range of barriers to implementation. Language use in classrooms was a noted issue, with some lecturers feeling that when students conversed in their native languages, it could alienate others. Cultural misunderstandings – such as differing expectations about student participation – also emerged as challenges. Additionally, a few participants described discomfort stemming from conflicting personal and cultural boundaries, particularly in interactions where norms around gender or familiarity differed.

To address barriers and improve their practices, lecturers suggested enhancing diversity awareness, addressing personal and institutional biases, and ensuring that teaching materials are accessible and inclusive, for instance by using high-contrast slides to accommodate learners with visual processing differences. In looking to the future, participants expressed interest in creating more nurturing classroom environments, incorporating engaging activities focused on cultural exchange, and recognising and celebrating students' cultural events and holidays as a means of fostering belonging and identity.

Refining and expanding the CRT scale

Researchers further validated the 13-item CRT scale for a UK HE setting by revising the instrument following cognitive interviews with lecturers. Items were refined for clarity, and definitions were added for terms such as “acculturation”, “peer tutors” and “classroom preferences”. This process resulted in a second survey of 16 items,

which was distributed to 66 lecturers – 54 from one UK higher education college and 12 from other HE institutions. Many of the original 13-item survey participants also took part in this second survey.

The updated 16-item survey continued to reveal high engagement with CRT practices, closely aligning with the results from the 13-item survey. Practices such as providing feedback (78.8% “Always”) and checking that class materials are culturally appropriate (53.0% “Always”, 27.3% “Usually”) remained among the most frequently used, mirroring the first survey. Similarly, efforts to get to know students' backgrounds (45.5% “Always”, 39.4% “Usually”) persisted as a clear priority for lecturers across both survey versions.

The least frequently used practices also remained largely unchanged. Few lecturers reported spending time outside class learning about students' cultures and languages (13.6% “Always”) or learning words in students' native languages (16.7% “Always”). There was a modest decline between the first and the second survey around practices using peer tutors and student-led discussions. This shift may reflect changes in item wording or interpretation rather than substantive change in practice. In general, the consistency across the two instruments adds further validity to the findings, suggesting stable patterns in how lecturers engage with culturally responsive teaching across UK higher education contexts.

Looking to the future

This study highlights that CRT in UK higher education is both relevant and essential. By linking student motivation to cultural awareness, and grounding practices in both theory and real-world experiences, lecturers can foster inclusive environments where all students feel seen, supported and empowered to succeed.

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► From theory to practice: Enhancing student engagement through hands-on learning

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Duncan Mahon, Laboratory Technician, School of Health and Sports Science

At Regent College London (RCL), the faculty who teach on the Sports Programme are focused on combining theory with practice, in part through embedding hands-on practical sessions into the curriculum. In this context, practical sessions are structured, laboratory-based experiences in which students conduct hands-on activities directly tied to learned theoretical concepts. This short paper considers the value of practical sessions and demonstrates how RCL's unique higher education model encourages the implementation of such within the student experience.

Why practical sessions work better at RCL

RCL's three-hour teaching blocks can be both a challenge and an opportunity. [Research](#) shows that one challenge can be the extended periods of passive learning which can diminish engagement and reduce cerebral blood flow. This can be combatted, in part, with variety through integrating lab work into longer sessions as this provides stimulation and a breath of fresh air into a learning session. Classes at RCL are also generally smaller in size compared to other higher education institutions. This helps to eliminate timetabling and room size issues (often a limitation of laboratories) which can hinder the ability to incorporate practical sessions into the curriculum.

Creating a workplace model through a Sports Consultancy Service

It is vital that students are exposed to the real-life applications of their knowledge before entering the modern workplace. At RCL, we are currently piloting a Sports Consultancy Service in the School of Health and Sports Science, which we believe will fulfil this goal. The service will initially open to staff members and offer a range of sports and health related fitness tests. Students will perform these tests under supervision of the Sports team faculty.

Before performing any tests, students will also take part in the process of collecting participants' informed

consent and performing medical screenings. At this time, participants will be provided a questionnaire to complete, details about the tests to be performed and any associated risks, and information on data storage. Following this, a medical screening will be conducted using the Physical Activity Readiness questionnaire (PAR-Q). The PAR-Q is based upon guidance from the American College of Sports Medicine and widely used by sports scientists, fitness trainers and coaches. If any medical issues are made known, participants will be advised to first seek medical clearance from a medical doctor.

Through taking part in these preliminary processes, students will gain valuable experience and transferable skills. Under faculty supervision, they will have the opportunity to practise gathering and storing sensitive health data. Managing sensitive data and complying with the General Data Protection Regulation is a skill used widely across all sectors. Students will also develop strong communication skills as they speak with clients and guide them through a range of complex processes. As a result, students will be better prepared for roles in a range of workplaces.

A common catch-22 facing graduates is the need to have experience for a job, but needing the job to gain the experience. Through their involvement in the Sports Consultancy Service, RCL Sports students will acquire direct experience delivering performance and fitness tests, further preparing them for the workplace. The students will deliver and execute both a functional movement screen (FMS) and VO2 max test. The FMS is a standardised tool consisting of seven tests, which assess a range of basic movement patterns. Each is given a score out of three for a maximum possibility of 21. This is a sector specific skill which brings into practice anatomy knowledge that the students learn during their course, and which gives them real life context and variability to apply this theory.

The students will also deliver the gold standard of aerobic fitness testing, the VO2 max test. The test measures the participant's ability to utilise oxygen during exercise and gives an indication of cardiovascular fitness. This test is not only for athletes, but for anyone trying to improve their general fitness or health. By conducting these tests, RCL students will gain the knowledge to setup and deliver complex tests involving human subjects, where they must deploy a range of problem-solving skills, data analysis and teamwork.

The Sports Consultancy Service, then, can be seen to leverage RCL's unique delivery model of extended sessions and smaller cohorts as this presents an ideal environment for embedding practical sessions. Not only do students have the unique opportunity to learn specific sector-relevant skills alongside other transferable skills, but they actively enjoy the learning experience. Indeed, their most frequent question to lecturers is, "Do we get to do a practical session today?"



Duncan Mahon, Laboratory Technician at RCL, conducting a functional movement screening to assess full body mobility and flexibility.

► “Am I doing it right?": Enhancing teaching through critical reflection

Dr Riadh Ghemmour, Lecturer, Academic Skills

As educators, we often pause to ask ourselves “Am I doing it right?” This question, while simple, can be a powerful entry point into a deeper process of scrutiny and appraisal known as critical reflection. According to [Stephen Brookfield's 2017 work](#): “Critical reflection is, quite simply, the sustained and intentional process of identifying and checking the accuracy and validity of our teaching assumption”. The author further explains that we all have our distinct assumptions and beliefs which guide and inform our actions. Critical reflection offers an opportunity to uncover and question these taken-for-granted assumptions, enabling us to examine them with careful thought.

This process can empower and transform our teaching, making it a more intentional, engaging and evolving journey. It also steps in to offer guided and meaningful ways to interrogate and question how and why we do things within our classrooms and beyond. Yet, many of us may not fully engage in critical reflection due to limited time, lack of resources, lack of understanding of the process, uncertainty about its value, or even fear of confronting uncomfortable truths.

In this short piece, I explore the concept of critical reflection in the context of teaching practice, drawing on Brookfield's four lenses to deepen reflective thinking. This approach not only enhances teaching and learning but also strengthens professional recognition through applications such as Advance HE Fellowships.

Understanding critical reflection

In the definition provided above, critical reflection is not simply about considering what went well or poorly during a class or how many students liked or did not like a particular activity, but rather it is about challenging the underlying beliefs, norms and assumptions that guide our choices in the classroom and overall institution.

Unlike general reflection which focuses on the tip of the iceberg (e.g., how to set up the room for teaching

or what questions to ask to check understanding), critical reflection involves a more deliberate and deeper interrogation of our teaching against multiple perspectives. It asks us to confront uncomfortable truths, such as: Is my curriculum representative of our student body? Does it privilege certain voices above others?

The examples above require time, space and resources to think, reflect, experiment and challenge assumptions and beliefs to find meaningful answers. Yet, one key question remains: How do we go about critically reflecting on our teaching practice? Brookfield suggests four important lenses which can guide our thinking and reflection effectively. These lenses prompt us to unpack our teaching practices, allowing us to perceive familiar practices and norms through a critical angle.

Brookfield's framework for critical reflection

Brookfield's four lenses for critical reflection are personal experience, the students' eyes, our colleagues' perceptions and theory.

Personal experience: Reflecting on our teaching journey reveals patterns in our decision-making. For instance, I used to believe that using colourful slides with visuals and animations would make my teaching more engaging and enjoyable. However, I have come to realise that overly polished slides can unintentionally disadvantage students with disabilities or specific learning needs (e.g., dyslexia), reducing the accessibility of the content and potentially jeopardising their learning experience.

The students' eyes: Evaluating our teaching practice through the students' eyes is central to a learner-centred approach. Student feedback, whether gathered formally through standardised evaluation forms or informally through end-of-session check-ins, offers valuable insight into how our teaching is received. For example, when several students expressed feeling patronised by the way I demonstrated a time management planner, I recognised the need to revise my approach. This led me to

explore more appropriate models and techniques for time management, ultimately shifting towards more interactive and collaborative planning sessions.

Our colleagues' perceptions: Having a critical and trusted colleague can spark new conversations, lead to fresh avenues for reflection and unearth underlying beliefs and assumptions about our teaching practice. Engaging in reflective dialogue with colleagues is an effective way to challenge echo chambers and gain novel perspectives. Critical friends encourage you to describe a problem or situation, ask you questions about it and recommend ways to think it through carefully for the betterment of teaching practice. At Regent College London, an emphasis on peer-observation provides a valuable opportunity for colleagues to attend and observe each other's classes, offer constructive feedback and contribute to meaningful change, affirmation and pedagogical transformation.

Theory: Reading pedagogical literature helps educators to frame their teaching within wider educational debates. However, for many academics finding time to engage with this wealth of literature remains a challenge. It is therefore essential that institutions provide dedicated time, space and resources, such as reading groups, reflective forums or knowledge exchange initiatives to support critical engagement with educational theory. Theory has the power to enrich practice and widen understanding. In my own experience, the work of influential educationalists such as Paulo Freire, bell hooks, Gert Biesta and Henry Giroux has given articulate expression to ideas and feelings I had intuitively held about my teaching. Their insights offered not only a language through which to understand my practice, but also affirmation and a sense of empowerment.

Concluding thoughts

Embedding critical reflection in our professional routines is not just a personal gain – it is increasingly found in institutional expectations and standards. Frameworks such as Advance HE's Professional Standards Framework (PSF) encourage educators to demonstrate reflective practice as part of their teaching excellence. Using Brookfield's lenses and reflective documentation can strengthen such applications and, more importantly, embed a culture of

openness, curiosity and transformation within teaching teams.

At an institutional level, creating space for regular reflective conversations through forums such as peer observation, collaborative teaching or reading groups can achieve genuine pedagogical development. Critical reflection is not about perfection. It is about being open to discomfort, embracing uncertainty and committing to continuous growth. It allows us to see teaching not as a fixed identity but as a dynamic practice shaped by students, colleagues, contexts and evolving knowledge. So, the next time you ask yourself "Am I doing it right?", resist the urge for a quick yes or no. Instead, ask: Why do I think this is right? Who benefits? Who might be left out? And how can I do better?



► A Sports Programme team's cohesive approach to enhancing student engagement through blended learning

Dr Sophia Ha, Head of Programmes (Interim) – Sports, School of Health and Sports Science

This paper outlines the implementation of blended learning and innovative pedagogical strategies by the Sports Programme team at Regent College London (RCL) to enhance student engagement in both face-to-face and online settings. These approaches support the Office for Students (OfS) Conditions of Registration, particularly [B1 \(Academic experience\)](#), [B2 \(Resources, support and student engagement\)](#), and [B5 \(Sector-recognised standards\)](#).

Traditional approaches in teaching and learning

Conventionally, higher education has emphasised content delivery and lab activities during scheduled class times, assuming a uniform level of student preparedness. In reality, students often have varied academic backgrounds, leading to disengagement and uneven learning outcomes. In this more traditional approach, post-class assignments typically require students to work independently with limited guidance, which poses challenges for those lacking foundational knowledge or confidence. In response, the Sports Programme team has aimed to improve access to resources, support and student engagement through updated pedagogical methods.

Blended learning at RCL

[Blended learning](#) is central to RCL's delivery model, combining in-person instruction with online and self-directed learning. This format allows students to progress at their own pace, maximises face-to-face sessions for collaborative work and critical thinking, and encourages independent learning.

For RCL's largely mature student cohort, many of whom juggle family and work commitments, this blended learning approach offers crucial flexibility. However, it also requires students to take greater responsibility for their academic progress. Another component of the Sports Programme team's approach is RCL's Sports Science and Nutrition Laboratory, a modern facility offering hands-on learning experiences that develop industry-relevant skills applicable in both sports and clinical contexts.

RCL's recent adoption of the "Prepare, Collaborate,

Consolidate" (PCC) model has contributed to the team's approach to blended learning. In the model, PCC stands for:

- **Prepare:** Students engage with asynchronous materials on the Virtual Learning Environment (VLE) before class.
- **Collaborate:** In live lectures (in person or via MS Teams), students participate in interactive activities.
- **Consolidate:** After class, students complete self-directed study or testing to reinforce learning.

Strategies to enhance engagement in Sports Programmes

The Sports Programme team uses a range of strategies beyond traditional classroom teaching to increase student engagement both online and offline.

In-person learning: Hands-on learning is a core feature. One example is RCL's Sports Consultancy Service, where students assess flexibility and muscle strength. These activities offer transferable skills and simulate real-world applications, involving RCL staff or external stakeholders. Practical lab sessions using equipment such as the treadmill, Wattbike for oxygen consumption testing and countermovement jump tests further reinforce theoretical knowledge and promote active participation.

Presentation skills development: To support communication skills, the team incorporates video recording into assessments. Many students, especially those for whom English is not a first language, fear public speaking. Through formative recorded presentations, students receive feedback via a standard rubric that helps them reflect and improve. This process builds confidence and prepares them for summative assessments.

Online and independent learning: Online strategies aim to enhance digital learning with innovative tools and activities. For example, students can complete self-tests like pulse counting at home to estimate heart rate. These simple activities promote engagement in practical content remotely.

The [Visible Body app](#) supports Anatomy and Physiology learning through interactive 3D models, helping students revise outside class. Students also benefit from access to the [SportDiscus database](#) for academic journals, as well as a range of e-textbooks and recommended print materials.

Impact on student engagement and learning outcomes

These blended learning strategies have been shown to positively influence student satisfaction and academic success in the Sports Programmes' Module Evaluation Questionnaires (MEQ). In the Anatomy and Physiology module, students appreciated teamwork opportunities and found tools like the [Visible Body app](#) and supporting videos valuable for their understanding. In the Physiology of Exercise module, practical lab sessions allowed students to grasp complex concepts easily through experiment. Group discussions and results comparisons deepened their learning experience. Students described the modules

as engaging, insightful and highly beneficial, and overall, MEQ results indicated strong levels of satisfaction across the Sports Programmes. In fact, five modules received 100% positive feedback, with students highlighting the organisation of sessions, relevance of content and support from academic staff and the Student Support Officer.

The adoption of blended learning and the PCC model, supported by a mix of in-person and online engagement strategies, has significantly enriched the learning experience within the Sports Programmes at RCL. High levels of satisfaction reported through MEQ, alongside strong feedback on resources and teaching methods, demonstrate the success of this approach. These innovations reflect the team's commitment to meeting the OfS B Conditions of Registration by providing high-quality learning, sufficient support and alignment with sector standards.



Jodie Teale, Senior Lecturer at RCL, conducting a VO2Max test to assess an athlete's maximal aerobic capacity.

► Bridging the language gap: English proficiency and student engagement in foundation year business programmes

Besiana Tifeku, English Tutor, School of Business

Over the past decade, the number of international students enrolled in UK universities has increased dramatically. In the 2022-23 academic year, there were 758,855 [international students](#), making up 26% of all higher education students in the UK. Although this number dipped slightly to 732,285 in [2023-24](#), international students continue to play a vital role in shaping the UK university landscape.

English proficiency among home students

However, these statistics offer only a partial picture of English language proficiency, as they do not distinguish between native (NS) and non-native speakers (NNS) among international students. This gap becomes even more pronounced when considering UK “home” students who speak English as an additional language. Because these students are classified as home students, their language proficiency is rarely assessed or supported once they begin their university studies.

This is particularly important to understand in foundation year programmes, where students often enter with varying levels of English proficiency. While they may meet the entry language requirement, many continue to struggle with everyday communication. Many universities offer pre-sessional English for Academic Purposes (EAP) courses, which typically focus on academic writing and formal vocabulary, but neglect key areas such as grammar, general vocabulary and speaking fluency. Overall, [research](#) suggests that foundation year students face two primary challenges: mastering academic English and developing general communication skills for presentations, discussions and group work. These challenges create language barriers that hinder learning and engagement, regardless of students’ intelligence or potential.

Insight from a Needs Analysis with foundation year students

At one UK higher education college, the business foundation year programme includes a diverse mix of international students and UK-based learners who speak English as a second language. In my role as an English tutor, I have seen firsthand how language difficulties impact students’ participation and performance, despite many of these students having lived in the UK for many years. The English team in this college’s School of Business recently conducted a Needs Analysis with two cohorts and found that while 72% had lived in the UK for over five years, only 3.4% identified as native English speakers. The majority rated their English as intermediate, with grammar and vocabulary reported as the most common challenges.

This underscores a common misconception that living in an English-speaking country automatically equates to strong English language skills. In reality, many students are unprepared for the specific demands of academic communication in business education. Success in this field requires more than understanding of content; it requires clear and confident communication, both written and spoken. Students must be able to write structured reports, take part in group discussions, deliver presentations and understand technical vocabulary. [Recent research](#) demonstrates that language-related difficulties notably impact students’ academic performances. As proficiency improves, students encounter fewer barriers to learning, resulting in higher engagement and academic success.

The Needs Analysis also collected information on student preferences on English language support delivery. The highest proportion of students at 31% said they preferred online English classes, while 27% favoured face-to-face learning and 18% preferred to engage with online

resources and self-study. The remaining 24% of students selected other formats for language support, reflecting a range of learning habits and needs. This variety of responses highlights the importance of offering a flexible, blended approach to instruction that combines digital tools with classroom interaction to meet diverse needs and maximise engagement.

Integrating English instruction with academic content

To address these challenges, the English team have implemented strategies to support language development alongside academic studies. One key approach is integrating general English instruction with academic content. For example, grammar and vocabulary support are embedded into lessons focused on case studies or report writing. Task-based learning activities, such as debates and role-playing, help students practise speaking in realistic contexts. Step-by-step scaffolding enables students to break down complex tasks into manageable stages, building confidence and encouraging practice in a supportive environment.

Group work and peer feedback also play a big role in our approach. Students often feel more comfortable learning from each other, and collaborative activities provide them regular opportunities to use English without the pressure of formal assessment. Digital tools such as integrated quizzes, live polls and interactive whiteboards support vocabulary development, grammar practice and pronunciation, while accommodating diverse learning preferences.

Embedding language support in the curriculum

This author believes that language support should be a core component of foundation year business courses, not an optional add-on. With just 3.4% of our students identifying as native English speakers, more than 95% face some form of linguistic challenge. Embedding language instruction within academic modules is not only appropriate, but necessary to ensure students can fully access and engage with course content.

Importantly, embedded language support benefits all students, including native speakers. It clarifies academic expectations, improves metacognitive awareness of communication strategies and fosters inclusive peer collaboration. Indeed, language support props up academic literacy development and is most effective when integrated into subject teaching and made relevant to disciplinary tasks.

The language gap in foundation year business programmes is a real and ongoing issue. Insufficient targeted language support affects students' academic performances, confidence and engagement. By recognising the importance of general English skills and embedding instruction into content delivery, we can provide students with a stronger foundation for future success.



► Psychological factors influencing student underachievement

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Underachievement in higher education remains a pressing concern despite decades of research and increasing support services across universities. Defined as the gap between a student's academic potential – often assessed through intelligence or aptitude tests – and their actual performance, underachievement can manifest as poor grades, disengagement and inconsistency. For educators, understanding the psychological and contextual drivers of this phenomenon is essential in supporting students to reach their full potential.

Theoretical foundations: Why students underachieve

Several psychological theories provide a foundation for understanding underachievement. Achievement Motivation Theory posits that student performance is largely influenced by two key forces: the desire for success and the fear of failure. Students who prioritise avoiding failure may underperform as a self-protective mechanism, avoiding challenges that could threaten their self-esteem. In contrast, those with a high need for achievement actively pursue academic challenges, often performing better.

Another important framework is Attribution Theory, which explains how students interpret their academic successes and failures. Underachieving students tend to attribute failures to internal, stable causes, such as a perceived lack of ability. This mindset often leads to learned helplessness, in which the student comes to believe that no amount of effort will change the outcome, reinforcing a cycle of underperformance.

Self-regulation theory also provides crucial understanding, suggesting that successful students employ effective self-regulatory strategies, such as time management, goal setting and reflective practices. Conversely, underachievers often lack these skills, which hampers their ability to plan, monitor and evaluate their learning processes. Finally, cultural and political contexts, such as minority status or political identity, can shape a student's academic path, influencing course selection, engagement and achievement.

Psychological barriers: Anxiety, perfectionism and self-concept

Beyond theoretical models, psychological factors can play a direct and immediate role in underachievement. Academic anxiety, particularly test anxiety, can significantly impair concentration, promote procrastination and reduce performance. Similarly, maladaptive perfectionism can lead students to avoid assignments altogether out of fear they will not meet their own impossibly high standards.

A student's self-esteem and academic self-concept – how they perceive their own academic abilities – strongly predict motivation and success. Students with a negative academic self-concept may disengage, doubting their capabilities and limiting their participation in class activities or assessments. Social influences, from parental expectations to peer interactions, can either buffer or exacerbate underachievement. Supportive environments help students build confidence and overcome psychological obstacles, while unsupportive contexts may reinforce feelings of inadequacy and isolation.

The research gap: Localised understanding of underachievement

While much has been said about underachievement on a broad scale, there is a gap in our understanding of how psychological variables play out in specific educational settings. These researchers conducted a mixed-methods study to explore these dynamics within a localised student population. The study involved 94 students from a UK higher education college, including individuals from a diverse range of backgrounds. By focusing on students from a specific institution, the researchers sought to uncover how self-confidence, cultural background and foreign language competence influence academic performance.

Quantitative findings: Measuring confidence in academic behaviours

To assess students' academic confidence, the researchers employed the Academic Behavioural Confidence (ABC) scale developed by Paul Sander and Lalage Sanders in 2009. The

ABC scale measures confidence across four areas:

- **Verbalising**, e.g., responding to questions in lectures.
- **Grades**, e.g., passing assessments on the first attempt.
- **Studying**, e.g., managing workloads and deadlines.
- **Attendance**, e.g., attending tutorials and lectures.

Study participants rated their confidence levels on a five-point scale. Data revealed three significant trends:

1. **Cultural comfort:** Students who felt comfortable with how lessons are conducted in the UK education system were more confident in attending classes, developing study skills and achieving high grades.
2. **English language proficiency:** Higher confidence in English skills correlated with greater confidence in verbalising ideas, completing assessments and using effective study techniques.
3. **Self-confidence:** Students with low self-confidence showed particularly low confidence in verbal communication, highlighting a strong connection between personal belief systems and academic expression.

These findings affirm that academic confidence is intricately tied to psychological variables and that enhancing students' self-belief and linguistic confidence can directly influence their academic behaviours.

Qualitative findings: Listening to student voices

To complement the survey data, five students participated in semi-structured interviews. Following the interview, data were coded using the qualitative data analysis software NVivo and ATLAS.ti to facilitate enhanced data visualisation. Thematic analysis was conducted and key themes were identified through the implementation of open coding and grounded theory.

Three central themes emerged from this qualitative data:

1. **External barriers to academic success:** Students cited work responsibilities, family obligations and institutional limitations as major hindrances. These factors, although not psychological in nature, indirectly affected their mental state and capacity to engage with academic work.

2. **Psychological barriers to performance:** Fear of failure, perfectionism and lack of self-confidence were recurring themes. Students expressed anxiety around assessments, reluctance to ask questions and a tendency to avoid engagement to protect their self-image.
3. **Coping strategies and motivation:** Despite challenges, students demonstrated resilience. They highlighted the role of tutor support, personal determination, natural curiosity and long-term goals as key motivators. Some students were able to stay focused and committed because they received targeted support and help to understand how academic skills translate to the professional landscape.

Practical applications and future directions

In response to the study's findings, the researchers implemented academic skills training sessions with students to focus on reflective practice, independent research and academic planning. These sessions aimed to equip students with the tools needed to navigate their academic journeys more confidently and independently. A journal article based on this research is in preparation for the Journal of Educational Psychology. The team will also present their findings at key learning and teaching, and inclusive education conferences, further promoting dialogue on inclusive and supportive academic practices.

Underachievement in higher education is not simply a matter of lack of effort or lack of ability. It is a complex interplay of psychological, social and contextual factors. This research highlights the critical role that confidence, mindset and the ability to cope with psychological barriers, both internal and external, play in student success. By recognising and addressing the psychological dimensions of underachievement, educators and institutions can create more inclusive, supportive environments where all students have the opportunity to excel. Interventions such as skills training, cultural acclimatisation projects and directed confidence-building support can make a significant difference in closing the gap between potential and performance.

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► Improving emotional intelligence for student confidence, coping and communication

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Emotional intelligence (EI) is increasingly recognised as a key component of student development within higher education. Defined as the ability to understand, manage and use emotions effectively, EI influences how students navigate academic challenges, communicate with others and manage personal stress. Studies have found EI to be associated with academic performance and resilience.

These researchers conducted a study to explore the impact of embedding EI workshops into the educational experience of students at a UK higher education college. The aim was to investigate whether targeted training could enhance students' emotional competencies and how students perceived the value of such training in their academic and personal lives. The project piloted three workshop delivery formats and used both quantitative surveys and qualitative feedback to assess outcomes.

El as ability or trait

The Ability Model views EI as a set of cognitive skills involving the perception, understanding and regulation of emotions. It includes four branches: perceiving emotions, using emotions to facilitate thinking, understanding emotions and regulating emotions. This model informed the workshop design by targeting skills-building in areas such as empathy, emotional regulation and decision-making. Alternately, the Trait Model conceptualises EI as personality traits such as adaptability, assertiveness and emotional expression. The traits are assessed through self-report tools, revealing how individuals experience and apply emotional skills in everyday life.

Both models highlight EI's significance in academic contexts. Indeed, one study found EI to be the third most important predictor of academic success after intelligence and conscientiousness and research suggests

that structured EI interventions can enhance motivation, academic achievement and coping strategies.

EI contributes to both intrapersonal and interpersonal domains, which are essential for academic success. Intrapersonally, EI supports self-regulation, time management and resilience, key skills for managing coursework and stress. Interpersonally, EI enhances communication and conflict resolution, contributing to more effective collaboration and classroom engagement. Research suggests that final year students exhibit higher levels of EI due to their exposure to academic and professional environments. This suggests that EI can be developed over time, supporting the case for integrating it into the formal curriculum.

Training programmes that explicitly teach these skills enhance equal access to opportunities for all students, including those from international and widening participation backgrounds. The EQStudents initiative across Europe supports EI development through structured programmes in schools and universities. Research has additionally shown that EI correlates positively with physical activity, career motivation and student wellbeing. These findings reinforce the idea that EI training contributes to holistic student development.

El workshop pilot project

This study was conducted with 103 students from Levels 3 and 7 at a UK higher education college. The study focused on these two levels to investigate potential differences in EI between students at the beginning and at the end of their academic journey. The student population represented adult learners, international students and those from widening participation groups. The intervention consisted of six one-hour EI workshops focused on the following topics:

- **Session 1:** Self-awareness and emotional identification
- **Session 2:** Self-regulation and managing personal emotions
- **Session 3:** Building resilience and sustaining motivation
- **Session 4:** Empathy and social awareness
- **Session 5:** Conflict resolution and emotional support
- **Session 6:** Building relationships and applying EI in decision-making

The workshops were piloted in three different formats, varying in session frequency and duration. The Schutte Self-Report Emotional Intelligence Test (SSEIT), Situational Test of Emotional Understanding (STEU) and Situational Test of Emotion Management (STEM) were used to measure EI levels before and after the workshops. Complementary qualitative data were gathered through open-ended surveys.

Quantitative insights: Measuring EI skills

Across all pilots, quantitative results showed no statistically significant changes in EI scores following the workshops. However, each pilot revealed certain non-significant trends. In Pilot 1, all six sessions and three surveys were delivered within a single day. The results revealed the non-significant trend that 42% of students had increased STEU scores post-workshop. However, the surveys were long, and many students appeared to complete them quickly following the intensive six-hour workshop. This tendency to rush through the post-surveys may have contributed to the non-significant results, as responses were likely less thoughtful or accurate. Additionally, comprehension difficulties among non-native English speakers, particularly with the complex language of the STEU and STEM measures, may have further impacted the quality of the data.

In Pilot 2, sessions 1-3 were delivered in one day and then sessions 4-6 were delivered in one day to participants two weeks later. This pilot utilised only the SSEIT survey, and results revealed a non-significant trend in that the SSEIT post-workshop mean was higher than the pre-workshop mean.

Pilot 3 appeared to be the most effective and manageable format, distributing the six sessions over three weeks. This pilot used only the shorter, more accessible SSEIT survey. In Pilot 3, although not statistically significant, 52% of students showed increased EI scores. Overall, challenges across all three pilots included survey fatigue and reduced engagement. These observations highlight the importance of minimising cognitive load and survey length in future research designs to improve response quality and data validity.

Qualitative feedback

Open-ended surveys completed by study participants revealed three key themes around their understanding of EI, application of EI skills and feedback on the workshop format. Participants described enhanced understanding of EI, noting it to be vital for relationship-building, conflict resolution and emotional expression. Many articulated a nuanced understanding of how emotions can influence behaviour.

Additionally, participants reported practical application of their enhanced EI skills in academic settings and daily life. Emotional control, communication and self-awareness were also commonly mentioned as future-use areas. One participant noted, “I will use it to express my feelings and overcome conflict” while another stated, “I will apply this knowledge to communicate and understand others better”.

Finally, with regard to the format of the workshops, students expressed a strong preference for interactive activities and requested more time for discussion and follow-up support. One person suggested, “Incorporating group discussions, role-playing and live polls can enhance engagement” while another noted that, “Allocating time for peer feedback and reflection would be beneficial”.

An additional, brief survey conducted three weeks after the training revealed that students had applied EI skills in real-world contexts. They reported using the 4-7-8 breathing technique for exam stress, active listening to reduce conflict and improved sensitivity during communication.

Practical changes and future directions

In response to the above findings, several practical changes will be implemented in future projects stemming from this study. Pilot 3's format of two sessions per week over three weeks will be adopted as this format reduces participants' cognitive overload and allows time for reflection.

Additionally, the SSEIT will be the sole survey tool for future research due to its simplicity and reliability. Based on student suggestions, future workshops will incorporate more interactive elements and provide post-workshop follow-up opportunities. Expanding participation to Levels 4, 5 and 6 will also help evaluate broader applicability. Finally, long-term tracking of academic outcomes will also help to assess the real-world impact of EI training.

This study highlights the subjective and practical benefits of embedding EI workshops into the higher education experience. While quantitative data did not show significant changes in EI scores, the observed trends and rich qualitative feedback indicate that students value EI training and perceive personal growth. Although future research with larger samples and longitudinal design is needed to further understand and confirm these promising findings, EI development should be considered a critical part of academic support, particularly for international and non-traditional students. Structured, well-paced EI training that combines theory and interactive learning has great potential to support emotional wellbeing, academic resilience and future career readiness.

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► Integrating AI to enhance critical thinking in higher education

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As artificial intelligence (AI) becomes increasingly prevalent in higher education (HE) settings, its relationship with and impact on students' critical thinking (CT) skills has become a central concern for institutions and educators alike. This paper explores how AI tools influence the development of CT skills; examines key challenges and ethical implications of AI usage in education; and presents strategic approaches to harmonise AI usage with pedagogical goals. Drawing from eight studies and a thematic analysis of AI-CT dynamics, the findings underline the necessity for human oversight, AI literacy and creative engagement to ensure that AI supports rather than replaces authentic intellectual development.

AI technologies have become ubiquitous in education, often sparking debate about their impact on students' critical thinking abilities. Despite growing enthusiasm for AI's potential to personalise learning and automate tasks, educators express concerns about reduced student engagement, a decline in in-depth analytical thinking, and an overdependence on algorithm-generated content.

While AI integration in education appears inevitable, its implementation must prioritise the enhancement of educational outcomes – particularly the cultivation of CT, a core academic and life skill.

Critical thinking and AI

Critical thinking involves forming judgements through goal-directed and evaluative processes. Lavinia Marin and Steffen Steinert's 2022 work argues that CT does not rely on a specific faculty but reflects how intellectual skills are deployed in pursuit of truth rather than convenience. Recent research further defines CT as the ability to analyse, evaluate and synthesise information while the Critical Thinking Disposition Inventory outlines key traits of critical thinkers, including open-mindedness, truth-seeking, cognitive maturity and self-confidence – traits potentially affected by the ways in which students interact with AI tools.

Modern classrooms feature a variety of AI applications,

ranging from large language models like ChatGPT and Gemini to learning assistants such as Kahoot and SummarizBot. AI's appeal lies in its ability to generate content, provide real-time feedback and personalise instruction. However, emerging studies suggest that this convenience may unintentionally dampen students' CT engagement if it is not managed with human oversight.

Findings and challenges

We conducted a thematic analysis across eight experimental studies to assess the effect of AI on CT in academic settings. The findings revealed nuanced outcomes. While AI can facilitate learning, overreliance may compromise analytical reasoning, active inquiry and the ability to distinguish bias from fact. This often results in students practising a form of cognitive offloading. These results align with wider research showing that passive consumption of AI-generated responses can hinder the development of inquisitiveness and independent judgement.

After consolidating the findings, our study revealed three primary challenges associated with the integration of AI in educational settings. Firstly, there was a noticeable reduction in student engagement. Many learners tended to rely on AI for swift responses, which led to a diminished interaction with the foundational concepts of their studies. Secondly, a decline in analytical skills was observed. When students accepted AI-generated output without critical examination, their capacity to assess arguments and evaluate evidence deteriorated. Finally, the research highlighted the risk of learners uncritically accepting misinformation. AI systems, while often persuasive in tone, can produce biased or factually inaccurate content that appears credible. This, in turn, contributes to the reinforcement of existing misconceptions among learners.

Addressing the challenges

All eight studies that were analysed demonstrated that effective integration of AI in HE requires proactive strategies. First, human oversight must guide AI use,

ensuring that educators maintain control over curricular decisions and student assessments. Second, promoting ethical use of AI requires educators to address algorithmic bias and foster inclusive pedagogical practices. Third, active engagement should be encouraged by training students to critically interrogate AI-generated content.

Students must also be taught the limitations of AI. Educators should highlight the contextual nature of AI outputs and encourage reflection on where these tools fall short. Collaborative learning environments, where AI is a co-participant rather than a replacement, can reinforce peer interaction and deepen understanding. Finally, all but one of the studies concluded that balancing automation with creativity is essential for students to create, question and adapt rather than passively receive.

Creative strategies for integration

Several innovative pedagogical strategies have emerged to support AI integration in education while fostering critical thinking. One approach involves interactive support, where AI tutors and chatbots engage students in Socratic dialogue to prompt deeper inquiry. Real-time feedback mechanisms, such as instant response systems, further this by encouraging critical reflection on reasoning.

Customised learning enables the delivery of personalised content, enhancing accessibility and inclusion for diverse learners. AI also facilitates co-creation and collaboration

through group projects where students develop and expand upon AI-generated ideas. Embedding AI-literacy education in curricula helps learners develop critical awareness of AI's affordances and limitations, promoting ethical use. Innovative assessment practices that require higher-order thinking help reduce overreliance on generative tools. Finally, aligning AI use with personal development goals, such as fostering ethical self-reflection, cultivates academic integrity and responsibility.

Takeaways

As AI becomes embedded within educational ecosystems, educators must rethink not only their teaching methods but also how CT is defined and assessed. The emphasis should shift from passive adoption to intentional integration grounded in human oversight, ethical considerations and pedagogical purpose. Further research is required to develop scalable models for AI-enhanced CT education that reflect the complexity and diversity of multiple HE contexts.

A structured roadmap for AI integration can support educators in aligning digital tools with learning outcomes. This includes establishing clear AI policies, setting goals, selecting appropriate AI tools, training staff, piloting initiatives, and scaling AI-use based on feedback and performance metrics. Ultimately, educators should champion a balanced approach where AI serves as a catalyst for deeper thinking, not a shortcut around it.



► Learning through software: Exploring the impact of Visible Body on student experience

Humza Fazli, Lecturer, School of Health and Sports Science

The integration of digital tools in higher education is changing the way students engage with course material, both in the classroom and beyond. This is particularly relevant in disciplines such as anatomy and physiology, where [research](#) demonstrates that visualising the structure of the human body plays an important role in comprehension. In response to this, the Sports department at Regent College London (RCL) began exploring innovative ways to embed interactive learning tools into the curriculum, to support students outside the classroom. One such tool is [Visible Body](#) (VB), a virtual 3D platform for anatomical exploration that was introduced to students enrolled in Level 3 and 4 anatomy modules. This paper outlines the outcomes of a small-scale study, which focused on exploring the effectiveness of the additional software VB in enhancing student learning experiences.

Digital tools for learning

The [use of virtual learning software](#) and supplementary digital tools has grown significantly across higher education. These platforms are not only convenient but have been [shown to increase](#) student autonomy, engagement and confidence. In anatomy and physiology, where students must recall and understand the relationships between multiple systems and structures, traditional textbooks often fall short. VB bridges this gap by allowing learners to manipulate and explore the body in ways which may not usually be possible. The adoption of such a tool is part of a broader pedagogical trend toward blended and active learning approaches, in which digital resources supplement in-class instruction.

The study

To evaluate the impact of VB, Level 3 and 4 students enrolled in an Anatomy and Physiology module and a Functional Anatomy module were invited to complete a mixed-methods questionnaire. A total of 51 students were invited to participate, with 23 completing the survey. The questionnaire included Likert-scale ratings, multiple choice and open-ended questions. It addressed usage frequency, preferred platforms, perceived benefits and overall satisfaction.

The survey aimed not only to understand how often students used the software, but also to capture qualitative data on how the tool supported students' understanding of course content. The integration of VB into the virtual learning environment (VLE) Canvas also allowed lecturers to track student engagement and embed interactive content directly into the VLE.

Results and student feedback

Of the 23 respondents, 70% reported using the application at least once per week, primarily via the web version, with some using the mobile app. While a minority of students indicated less frequent use, all respondents (100%) stated that they would recommend VB to peers. This highlights a perceived sense of usefulness, even among those who were occasional users. Table 1 shows how often survey respondents used VB while Table 2 shows respondents' preferred way to access VB.

Table 1: Frequency of Visible Body usage

Usage category	Number of students	Percentage
Weekly	16	69.6%
Rarely	5	21.7%
Other/ No response	2	8.7%

Table 2: Preferred platform for Visible Body

Platform type	Number of students	Percentage
Web version	15	65.2%
Mobile app	5	21.7%
Both/Not specified	3	13.0%

Qualitative feedback from the survey additionally provided rich insight. Students reported that VB improved their ability to visualise complex structures within the human body. One student stated, “The 3D models helped me to understand the structure of the body and quizzes for revision”, while another noted, “I was able to understand the module faster by using VB”. These comments reflect a theme of increased clarity, engagement and motivation; supporting the notion that VB was found to be useful and a beneficial supplement to student learning.

Several students appreciated the self-paced, explorative nature of the tool, which allowed them to revisit challenging concepts outside of teaching hours. Others mentioned that the ability to rotate and dissect virtual models made them feel more prepared for assessments and practical discussions in class. The inclusion of quizzes and diagrams also supported revision methodologies and reinforced learning outcomes.

Implications for teaching and learning

The integration of VB into the VLE supports a blended approach that combines face-to-face instruction with online and computer-mediated activities. This innovative method aligns well with the Office for Students (OfS) Conditions of Registration [B1](#), [B2](#) and [B5](#) by ensuring students receive a high-quality academic experience, sufficient support and meaningful engagement with their learning. Moreover, the use of additional software not only helps reinforce theoretical knowledge but also fosters self-directed learning, encouraging students to take ownership of their educational journey which is a key element of studying in higher education.

From a teaching perspective, the use of additional software is applicable to all disciplines. Educators should aim to embed relevant models, exercises and animations directly into modules found on their VLE. This will facilitate a stronger connection between in-class content and supplementary resources students may engage with outside the classroom. This approach can also help reduce cognitive load and make abstract concepts more accessible, particularly for students who may find it difficult to grasp such concepts.

Conclusion and future recommendations

The findings from this small-scale study strongly support the use of additional learning tools such as VB in higher education. Students found the tool engaging, user-friendly and effective in deepening their understanding of human anatomical structures. By expanding student learning opportunities beyond the classroom, additional software may encourage repetition, exploration and reflection; three key elements of effective learning.

It is recommended that future studies evaluate the long-term impact of tools such as VB on student performance and retention. Additional research could seek to explore how additional learning tools influence study habits, confidence and practical application in professional practice. Integrating student feedback into ongoing development and embedding virtual tools to a greater capacity within course material may further ensure that learners are supported with inclusive, effective and innovative educational experiences outside of the classroom.



► Using video recordings to improve student presentations and feedback

Luis Iglesias, Lecturer, School of Health and Sports Science

Oral presentations are a common type of assessment in higher education, yet many students feel underprepared. At Regent College London (RCL), Level 3 students complete two presentations in term one. However, many face challenges such as poor structure, limited practice and low confidence, issues which are particularly noticeable among students who speak English as an additional language. For them, the pressure of public speaking can feel overwhelming and lead to weaker performance and lower marks. Instead of feeling confident and proud, students often complete presentations feeling disappointed and unsure.

Feedback alone is not enough

In many courses, there are few opportunities to practise presentation skills before the final assessment. Students often receive limited feedback, or none at all, until their final performance has been marked. Feedback that is too short, unclear or disconnected from the task often fails to support learning. Without time to reflect and apply suggestions, students are unable to improve. Indeed, [research](#) shows that feedback supports learning only when it is part of a wider process, not when it stands as a single comment prior to a deadline.

Video and self-assessment improve outcomes

Video recordings provide a unique opportunity for students to watch and analyse their own work. With the help of a checklist provided by lecturers, students can carry out structured self-assessment, and become more independent in their learning. [Research](#) highlights that this type of reflection can [support](#) better planning and delivery, as it allows them to see both their strengths and areas for improvement. Indeed, when video recordings are used alongside structured self-feedback, peer feedback and tutor feedback, students gain a clearer picture of their performance. For example, a student may notice that they speak too fast or read too much from the screen while another may realise they need to improve eye contact or

reduce filler words. Watching themselves allows students to connect comments to actual moments in their delivery.

Additionally, peer feedback encourages students to listen critically to others and to learn from their classmates. Tutor feedback on the recording can also be more specific and easier for students to understand. For example, a tutor might say, “Try to pause here to allow your point to settle”, while showing that exact moment in the video. This [approach](#) turns feedback into a more useful and practical learning tool.

Another [study](#) showed that students who use video practice often score higher in presentations. Weekly video tasks help them build better structure, timing and delivery. At RCL, 20% of the final mark in certain modules is based on these skills. By reviewing their progress regularly, students become more confident and engaged, and more in control of their own success.

Recommendations for lecturers

To improve student experience and performance in presentations, it is useful to include a short video-recorded presentation task before the main assessment. This gives students time to rehearse and reflect on their delivery. Providing a clear checklist or marking guide is also helpful to provide students and peers with a structured and focused format for feedback on key presentation skills.

Video recordings are a simple but effective tool to help students prepare for presentations and benefit from feedback. They make the learning process more active and visible. Students are no longer passive receivers of feedback but active participants in their own development. Through regular practice, guided reflection and varied feedback, learners build the skills and confidence to become increasingly independent and successful.

► Using machine learning models to understand student achievement

Dr Md Mizanur Rahman, Lecturer, School of Engineering and Computing

Md Aminul Islam, Lecturer, School of Engineering and Computing

Machine learning (ML) models have been widely adopted to improve personalised learning experiences, increase engagement and enhance teaching efficiency in higher education. This paper explores a proposed study to use a data-driven machine learning model to support the measurement of student achievement in a UK higher education college. However, there are many factors which can influence academic achievement such as self-confidence, financial status, language and cultural barriers, and academic and pastoral support. As a result, developing an appropriate and fair clustering model presents a challenge for researchers.

Machine learning models

Machine learning models require substantial datasets to be effective. Algorithms such as K-means and Principal Component Analysis (PCA) help uncover meaningful patterns and reduce complexity. K-means, a widely used unsupervised ML algorithm, does this by clustering similar data points while PCA identifies the most influential variables within the data.

Specifically, K-means partitions a dataset into a predefined number of clusters by selecting initial centroids (either manually or randomly), calculating Euclidean distance between data points and centroids, and then updating the centroids based on the mean of assigned points. The optimal number of the clusters is determined by the elbow method. Figure 1 below shows the implementation of K-means with three clusters.

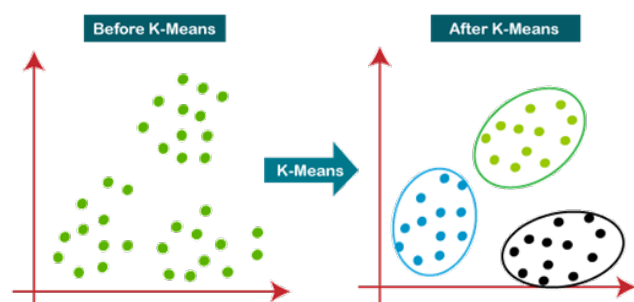


Figure 1: Implementation of K-means with 3 clusters

Relevant studies

In 2022, a team of researchers used an unsupervised ML technique to categorise Malaysian higher education students from the lowest income group (B40) based on academic performance. Using clustering algorithms including K-means, Balanced Iterative Reducing and Clustering using Hierarchies (BIRCH), and Density-Based Spatial Clustering of Applications with Noise (DBSCAN), the researchers analysed data on demographics, co-curricular activities, awards, industrial training and employment. The optimised K-means model produced the most effective results as it categorised students into five clusters and offered insights for policymakers to reduce dropout rates and enhance graduation outcomes.

It is important to note the limited generalisability of this particular study given its focus on a specific socioeconomic group in a specific national context. Moreover, while clustering can provide valuable groupings, it cannot identify causal relationships between variables, and the lack of independent validation limits the model's predictive accuracy.

In 2024, another study used PCA to reduce data dimensionality and identify key factors influencing academic achievement among final year students in the Computer Science and Business Administration departments of a university in Saudi Arabia. They analysed survey feedback from faculty members and students, and course portfolio data. From this, their research proposed the development of early indicators of academic shortcomings and potential solutions. Findings indicated that “knowledge percentage” – the proportion of core knowledge delivered and assessed – is the most influential factor (weight of 0.999) influencing academic achievement, followed by other contributing factors such as the use of assistive technologies and qualifications of lecturers. Although insightful, the study's findings are limited to the departments involved and do not establish causality.

Proposed study

Building on the above studies, these researchers propose to build a data-driven ML model to identify factors influencing student achievement at one UK higher education college. The outcomes are expected to enhance institutional understanding of student behaviours and academic trends and to support more effective enrolment strategies and student support services.

In addition to K-means and PCA, other clustering algorithms such as Hierarchical Clustering, BIRCH and DBSCAN can be employed to generate comparative insights into how student profiles are grouped based on performance indicators. The study seeks to evaluate the strengths, limitations and accuracy of each algorithm, which may guide future researchers, educators and administrators in selecting suitable data-driven models for future learning analytics.

To ensure meaningful results, these researchers aim to use large, recent datasets from a UK higher education college, and to additionally survey 200 students and alumni of the institution. Data quality can be improved through

cleaning and preprocessing to ensure the data-driven models identify hidden patterns and provide actionable insights. Models may be developed using Python with libraries such as Pandas, Scikit-learn, Seaborn and NumPy, alongside the Orange data mining tool for visualisation and validation.

Concluding thoughts

This study aims to leverage machine learning models to uncover patterns in student achievement and inform institutional strategy at a UK higher education college. By applying a range of clustering and dimensionality reduction techniques to different datasets, these researchers seek to inform targeted learning and support strategies to engage students better, enhance institutional planning and guide future educational analytics research. By using robust and large datasets, the study aims to provide actionable insight while highlighting the potential and limitations of machine learning in an academic context. Finally, the study seeks to support the overall enhancement of academic performance at the UK higher education college and to support institutional data-driven decision-making.



► Symbiotic learning in the AI age: Integrating reflective practice, systems thinking and quantum cognition for adaptive and inclusive education

Dr Xavier Matieni, Senior Lecturer, School of Engineering and Computing

As artificial intelligence (AI) continues to reshape the educational landscape, questions surrounding pedagogical relevance, learner agency and epistemological coherence have gained renewed urgency. Traditional educational models, which are largely linear, rigid and content-driven, struggle to accommodate the complexity, uncertainty and adaptivity required by the digital era. The current paradigm often fails to reflect the interconnected and co-evolving realities of knowledge ecosystems. In response to these challenges, this paper proposes the Symbiotic Learning model – a holistic pedagogical framework built on reflective practice, systems thinking, quantum cognition and AI integration. This model seeks to facilitate adaptive, inclusive and ethically engaged learning experiences that are responsive to the demands of the 21st century.

Theoretical foundations

The concepts within the proposed Symbiotic Learning model, shown in Figure 1 below, are rooted in interdisciplinary traditions that converge around the co-evolution of human and technological systems.

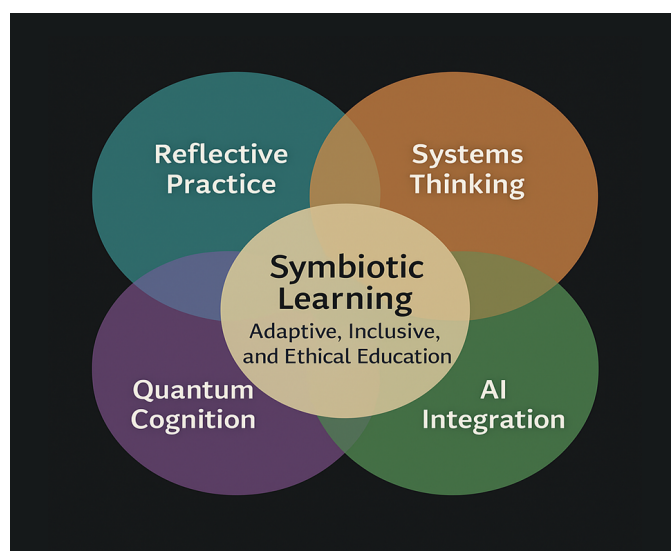


Figure 1: Symbiotic Learning model

Originally written in 1938, John Dewey's book *Experience and Education* stands in strong support of experiential learning, or integrating lived experiences into the construction of knowledge. Dewey argues that learning emerges from the interaction between the learner and their environment, mediated by reflection and inquiry. Vygotsky's work in 1978 extends this perspective through his *sociocultural theory*, which positions language and social interaction as central to cognitive development. Donald Schön's 1983 publication on *reflective practice* furthers this line of thought by foregrounding the role of practitioners in shaping and being shaped by their professional contexts.

The Distinctions, Systems, Relationships, and Perspectives (DSRP) *framework*, a systems thinking model, recognises that learning is not an isolated event but a systemic process involving interrelated components. Systems thinking equips learners with the tools to navigate complexity, identify causal patterns and understand emergent properties within dynamic systems. This approach aligns well with the non-linear and adaptive nature of contemporary educational environments in the proposed Symbiotic Learning model.

The Symbiotic Learning model is further built upon the concept of *quantum cognition*, which challenges classical logic and deterministic reasoning. Quantum thinking embraces paradox, simultaneity and probabilistic reasoning, enabling learners to entertain multiple perspectives and uncertainties. Such cognitive flexibility is essential in navigating AI-mediated learning environments, where outcomes are not always predictable, and knowledge is often fragmented and contested.

The integration of AI into the proposed Symbiotic Learning *model* draws on another model of AI-enhanced education,

which advocates for learner-centred, data-informed and ethically grounded applications of AI. Rather than replacing educators, AI in this context serves as a scaffold for metacognitive development, adaptive feedback and personalised learning pathways. Indeed, the co-agency of learners and intelligent systems is a defining feature of the Symbiotic Learning model.

Integrative studies and curriculum design

The integrative dimension of Symbiotic Learning echoes a call made in General System Theory by Professor Kirtley Mather for integrating studies in general education and moving toward more interdisciplinary approaches. Mather argues that this is essential to forming a coherent understanding of reality and moving past fragmented knowledge domains. Symbiotic Learning extends this vision by embedding interdisciplinary inquiry within the core structure of the curriculum. It equally promotes curriculum co-construction, where learners and educators collaboratively define learning goals, assessment criteria, and knowledge trajectories.

This approach also resonates with the principles of inclusive pedagogy as a process that transforms mainstream structures and practices to accommodate diverse learners. By involving students in the co-design of learning environments and employing adaptive technologies, Symbiotic Learning facilitates inclusion not merely as an outcome but as a dynamic and ongoing process.

Assessment and AI

One of the most pressing challenges in AI-driven education is the transformation of assessment practices. Traditional assessment models often privilege standardisation and memorisation over creativity, reflection and adaptability. The Symbiotic Learning model seeks to address this issue by foregrounding metacognitive skills and reflective assessment. Learners engage in continuous self-evaluation, supported by AI-generated feedback that highlights learning patterns, knowledge gaps and potential growth areas.

This model advocates for the ethical use of AI in assessment, promoting a culture of integrity, transparency and responsible AI use. A recent study reveals a growing tension in this area – faculty use of generative AI for efficiency, such as summarising texts or generating quizzes, while simultaneously questioning student use on grounds of academic integrity. Meanwhile, research shows that students may turn to AI tools out of necessity, particularly when assessments feel formulaic or disconnected from authentic learning.

Academic communities around the globe are calling for clearer, culturally sensitive ethical frameworks to guide AI adoption. Symbiotic Learning echoes this call for transparency, ethical reflection and mutual accountability. It positions AI not as a replacement for human reasoning but as a cognitive scaffold – a reflective mirror that prompts deeper inquiry, metacognitive awareness and epistemic humility.

Here, Symbiotic Learning invites institutions to reimagine assessment by designing tasks that emphasise originality, collaboration and process over product. This reduces reliance on superficial AI use while enhancing student engagement with complexity. This aligns with evidence suggesting that students are less likely to engage in academic misconduct when assessments are perceived as meaningful, fair and connected to real-world reasoning.

Invitation for model validation

While the Symbiotic Learning model is theoretically robust, it also invites empirical validation through Design-Based Research (DBR). DBR is a methodological approach that involves iterative design, implementation and refinement of educational interventions in real-world settings. It is particularly suited to the development of innovative pedagogical models that aim to balance theoretical rigour with practical relevance.

DBR is a mixed methods approach, which may include reflective journals, focus groups and video diaries to capture learner narratives, while learning analytics and

surveys provide quantitative measures of engagement, adaptation and metacognition. Thematic coding and statistical analysis are employed to identify patterns and test hypotheses. Mixed-methods triangulation ensures the reliability and validity of findings, aligning well with the multi-dimensional nature of the Symbiotic Learning framework.

Implications for policy and practice

Symbiotic Learning holds notable implications for educational policy and practice. It challenges institutions to move beyond tokenistic uses of technology toward integrated, ethical and learner-centred approaches. It also calls for a re-evaluation of teacher roles, from content deliverers to facilitators of inquiry and reflection. Professional development programmes must therefore include training in systems thinking, quantum cognition and AI ethics.

At the policy level, the model aligns with frameworks such as the Teaching Excellence Framework (TEF) in the UK, which emphasises student engagement, learning gain

and inclusive practices. It also contributes to the wider discourse on decolonising the curriculum by foregrounding diverse epistemologies and learner voices in curriculum design.

Conclusion

Symbiotic Learning presents a compelling vision for education in the AI age. By integrating reflective practice, systems thinking, quantum cognition and AI, it offers an adaptive, inclusive framework that addresses current challenges and anticipates future demands. It equips learners with the cognitive, ethical and technological skills needed to navigate complexity.

More than an abstract theory, Symbiotic Learning serves as a practical blueprint for systemic reform. It empowers institutions to foster inclusive, inquiry-driven and ethically grounded environments, fostering cognitive flexibility and collaboration in an uncertain world. Ultimately, it reaffirms education's core purpose: to help individuals think, act and live meaningfully – not just for today, but for the better future they must help create.



► Call for submissions

We maintain an ongoing call for submissions to the Research and Scholarship Quarterly (RSQ). We welcome ideas and research from staff at Regent College London, and are happy to support you to develop an idea into a paper. We also invite members of staff to recommend student contributions to the RSQ which are especially well done, original or innovative.

More detailed information about upcoming RSQ Issues will follow closer to the time. For now, please note the following themes and their submission deadlines:

- **Issue 13** – School of Engineering and Computing: Submission deadline is 11 September 2025
- **Issue 14** – School of Business and School of Law: Submission deadline is 30 October 2025

For any questions or to contact any of the authors in this Issue, please get in touch with the RCL Research and Scholarship team at scholarship@rcl.ac.uk

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