



Integrated Programme Assessment: 10 years on

David Tree¹, Amanda Harvey² and Mariann Rand-Weaver¹

Abstract

This paper explores the implementation and impact of Integrated Programme Assessment (IPA) across diverse disciplines in English higher education institutions. IPA is advocated as a framework that focuses on programme outcomes, aligns learning outcomes with assessment practices, and enhances the authenticity and relevance of assessments, thereby reducing over-assessment and improving student learning experiences and outcomes. Drawing on case studies from four institutions—University of Nottingham, University of Surrey, Brunel University London, and Sheffield University—the paper examines how IPA has been integrated into various undergraduate programmes to foster interdisciplinary learning, promote student engagement, and prepare graduates for professional challenges. Key to the success of IPA initiatives is institutional support that accommodates disciplinary identities and addresses operational challenges, ensuring sustainable and meaningful curriculum change. The study discusses the difficulty of balancing pedagogical innovation against operational realities, emphasising the need for a collective institutional approach to enhance educational quality while accommodating disciplinary diversity. This research contributes insights into the transformative potential of programme-level assessment approaches, informing discussions on enhancing educational practices in universities.

Keywords

assessment strategy, integrated assessment, programmatic assessment, programme focused assessment

¹ Brunel University, London, UK

² St Mary's University, Twickenham, London, UK

Corresponding Author:

David Tree, Biosciences, Department of Life Sciences, Brunel University, London, Uxbridge, Middlesex, UB8 3PH, UK

Email: David.Tree@brunel.ac.uk

Introduction

Challenges and regulatory pressures in present-day higher education

Over the past twenty years, assessment in higher education has come under increased scrutiny. Traditional methods—such as exams and coursework essays—may limit students' ability to showcase lifelong learning skills and reach their full potential (Medland, 2014), as highlighted by the PASS project at the University of Bradford (n.d.). While teaching practices have evolved, assessment methods have largely remained unchanged (Simper et al, 2021). Additionally, regulatory pressures in England and Australia now demand that institutions prove the value of their education through employment outcomes, emphasising the need for graduates to be well-prepared to contribute to society. There is also growing concern that these traditional practices may be contributing to rising mental health issues among students (Jones et al., 2020).

Frameworks for curriculum design

The idea that assessment drives learning is widely accepted. To harness this, curricula should integrate assessment into the learning process—emphasising 'assessment for learning' (Boud, 2000) rather than merely measuring outcomes. Clarity is achieved through defined learning outcomes, which in the UK are guided by the Frameworks for Higher Education Qualifications (FHEQs) (Quality Assurance Agency, n.d.). These outcomes must be aligned with learning activities, reflecting the principles of constructive alignment (Biggs, 1996) and backwards design (Wiggins & McTighe, 1998). This approach shifts focus from isolated module assessments to an integrated, programme-level design that fully supports student development.

From modular fragmentation to integrated programme-level assessment

In contrast to the modular system—introduced in the 1990s to facilitate flexible credit accumulation but often resulting in fragmented, siloed, and excessive assessments (Programme Assessment Strategies, 2012; Warburton, 2003)—there is a growing need for integrated, programme-level approaches that support multidisciplinary learning. Two UK-funded initiatives, TESTA (Transforming the Experience of Students through Assessment) and PASS (Programme Assessment Strategies), have advanced this agenda. TESTA, led by Professor Tansy Jessop, developed strategies to foster deeper learning across entire programmes, while PASS, led by Professor Peter Hartley and colleagues, promoted programme-focused assessments to counter the shortcomings of modularity. Although evidence of such approaches was limited to just 14 case studies from six institutions, Brunel University London contributed three case studies demonstrating its innovative Integrated Programme Assessment (IPA) in Biomedical Sciences, an approach recognised with a Collaborative Award for Teaching Excellence (CATE) in 2016.

Beyond modules: Implementing study and assessment blocks at Brunel

In 2009, Brunel University London enabled the Integrated Programme Assessment (IPA) approach by shifting from 'modular' to 'assessment' credits. This change separated teaching from assessment, allowing each year to be defined as 120 credits of assessment rather than a collection of modules. From 2011/12, Biomedical Science programmes replaced traditional modules with dedicated study blocks for learning and assessment blocks for summative evaluation. These synoptic assessments, which grow progressively

more complex, encourage reflection, integration, and application of knowledge. They are designed to be authentic and challenging, supported by formative activities that extend and deepen learning across lectures, seminars, and labs.

Similar name, different approach: Programmatic assessment in medical education

Around the same time, van der Vleuten and Schuwirth introduced programmatic assessment (PA) in medical education (van der Vleuten & Schuwirth, 2005; van der Vleuten et al., 2012), a model now recognised as a mark of excellence, as evidenced by the Ottawa 2020 Consensus Statement outlining PA's 12 principles (Heeneman et al., 2021). Despite acknowledged implementation challenges (Ryan & Judd, 2022; Torre et al., 2020), PA's holistic approach has influenced other models like Integrated Programme Assessment (IPA), which shares its integrative nature but is less complex in data triangulation and decision-making points.

Challenges in adopting programme-level assessment across disciplines

The adoption of IPA has been slow across disciplines (Bartman et al., 2022), despite its recognised benefits in fostering holistic learning through authentic, future-oriented tasks. This slow uptake is often due to institutional policies and structures that hinder such approaches (Charlton & Newsham-West, 2024; Charlton et al., 2022). In contrast, medical schools often receive exemptions, allowing tailored assessment practices. While integrated assessment methods have been reported in fields like civil engineering (Turnbull, 2020) and accounting (Osgerby et al., 2018), the limited literature does not necessarily indicate a lack of implementation. For instance, our institution has successfully implemented IPA across various disciplines for the past 12 years and shared these principles and experiences nationally and internationally, even though our approach remains unpublished.

Renewed interest and key considerations for implementing IPA

In recent years, interest in IPA has surged as institutions seek meaningful, learning-focused assessments suited to a post-pandemic world that are resilient to the challenges of assessment integrity and generative AI. IPA offers an effective strategy for designing authentic assessments that are less vulnerable to academic misconduct while also addressing concerns about workload and student and staff well-being. Notably, the discourse around IPA has shifted from why it should be adopted to how it can be effectively implemented, overcoming operational and institutional barriers.

Drawing on our interactions with institutions between 2017 and 2023, we offer insights into the essential aspects of successful IPA implementation. While IPA is an adaptable approach rather than a rigid model, our experiences provide guidance for those considering a shift to programme-focused assessment. By sharing key lessons and recommendations, we aim to support institutions in navigating this transition and embedding holistic assessment strategies.

Methodology

Following our 2016 CATE award, we actively shared our IPA approach through conferences, workshops, and sector-wide events, including the 2017 'Integrated Programme Assessment' workshop and the 2019 'Smarter assessment through innovative curriculum

design' conference. Since 2017, we have collaborated with over 50 institutions, including three internationally, with many engaging multiple times.

In this study, we share insights from four UK institutions: University of Nottingham, Sheffield University, University of Surrey, and Brunel University London. Adopting a constructivist grounded theory approach (Charmaz, 2016), we employed open-ended prompts (Table 1) to explore the scope, motivation, approach, and implementation of assessment changes at the four institutions. Participants were encouraged to reflect on their experiences throughout the process. This study received ethical approval from the Brunel Research Ethics Online system (Approval reference: 42575-LR-Jun/2023- 45116-2). All participants gave consent to take part in the project.

Table 1. Prompts used to elicit experiences of implementing integrated programme assessment

Topic	Prompts
Scope	Was your interest in IPA driven by subject/department/faculty, or at an institutional level (bottom up vs. top down)?
Motivation	What was the main motivation for implementing a programme-level approach to assessment? (<i>e.g. reducing assessment; facilitating authentic assessment; etc.</i>) What were the concerns raised by academic/professional staff about IPA? How were any barriers overcome and what were the strategies used to gain acceptance of your approach? What were the roles of the key players?
Approach	What have you done? (<i>Describe your approach – we are interested in finding out the range of IPA approaches, and whether there are differences between subjects as well as institutions</i>) Have you realised the benefits you were looking for?
Implementation	What was required to implement your approach – changes to regulations? Student Record System? Quality Assurance processes? What were the issues needed to be addressed in moving along this path? Which were crucial in enabling adoption? What hindered, what helped?
Reflection	What unfinished business is there yet to be addressed? What else is needed? Has IPA in your department resulted in institutional change? What advice would you give to anyone considering implementing a programme-level assessment approach?

Results

Nomenclature of assessment

There is limited literature evidence regarding programme-level assessment approaches beyond medical and health-related courses, which commonly use the term 'programmatic assessment' and yield numerous search results in databases. The scarcity of reported

assessment practices may also be influenced by the absence of universally agreed terminology and definitions, complicating database searches. The term ‘programme-focused assessment’ was introduced by the PASS project, defined as:

[...] assessment [that] is specifically designed to address major programme outcomes rather than very specific or isolated components of the course. It follows then that such assessment is integrative in nature, trying to bring together understanding and skills in ways which represent key programme aims. As a result, the assessment is likely to be more authentic and meaningful to students, staff and external stakeholders. (Programme Assessment Strategies (PASS), 2012, p. 3)

This definition suggests that programme focussed assessment can be viewed as a continuum from coordination to integration (Figure 1).

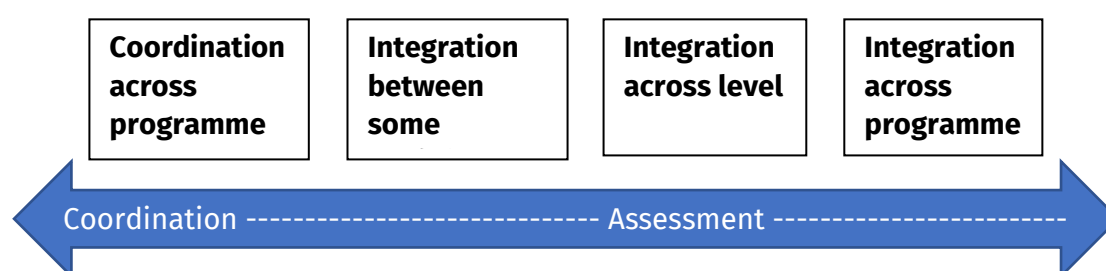


Figure 1. The continuum of programme focussed assessment. At one end of the scale assessments are coordinated within the programme; at the other end assessments are integrated across the whole programme.

Clarifying terms: Integrated Programme Assessment (IPA)

At one end of the spectrum lies a holistic and coordinated approach to assessments across the programme, ensuring alignment between assessments and learning outcomes while utilising a diverse range of assessment methods (Brunton et al., 2016). However, focusing solely on these aspects risks perpetuating segmented assessment practices and overlooks the integral component of Hartley's definition: integrative assessment. This ambiguity can lead to uncertainty about the term ‘programme-focused assessment’. To mitigate this, we introduced the term ‘Integrated Programme Assessment (IPA)’. IPA specifically refers to assessments where students demonstrate mastery of programme learning outcomes through the integrated application of knowledge and skills across each academic level, with assessments coordinated across these levels. Given the renewed interest in IPA in shaping education and assessment post-pandemic, it is beneficial to establish clear nomenclature and definitions, drawing inspiration from the Ottawa Consensus (Heeneman et al., 2021), which established principles for programmatic assessment in medical education.

Adoption of IPA: Motivations and examples

In 2011, a major impetus for changing the Biomedical Sciences’ assessment approach was the issue of over-assessment, which negatively impacted both students and staff by increasing workload and reducing the quality of assessments and feedback. Additionally, recognising the diverse career paths of graduates, we aimed to ensure they were well-prepared for a variety of professions. Implementing fewer, thoughtfully designed

integrated and authentic assessment tasks has resulted in a more cohesive and engaging curriculum, enhancing the transparency of how students apply their knowledge and skills. The improved student experience and preparation for graduate life, along with the opportunity to streamline summative assessments, have motivated other institutions to adopt IPA. For instance, the Foundation Year Programme in Nursing at the University of Surrey focuses on supporting students' transition to undergraduate studies and fostering self-regulated individuals. The Data Science Degree Apprenticeship course (University of Nottingham) and the dual Bachelor of Arts and Bachelor Science (BASc) Global Challenges (Brunel University London) require assessments that integrate multiple knowledge areas, skills, and behaviours authentically, reflecting the learners' current or future workplaces. The BEng/MEng Civil Engineering programme (University of Nottingham) and BA Journalism (Sheffield University) emphasise the integration of theory and practice to develop graduates with a robust understanding of their disciplines and professional contexts. Notably, the BASc Global Challenges at Brunel recently (2022) won the Next Generation Learning and Skills category of the Green Gown Awards for the UK and Ireland (Green Gown Awards, n.d.).

In all instances, the change was initiated by individuals within their respective disciplines, though the implicit, if not explicit, support from senior management was crucial. These pilot activities are significant within institutions as they demonstrate the feasibility of IPA across various contexts and, as highlighted in the PASS (2012) position paper, they were developed successfully through workshops and local activity rather than formal committee structures. At the University of Nottingham and Sheffield University, these initiatives are now informing more formal broader curriculum and assessment transformation projects at the institutional level. From an institutional perspective, the motivation for adopting a programme-level approach includes the following benefits (Reid, 2023, personal communication):

- Identify issues with assessment (fragmentation and over-assessment; likelihood of academic misconduct; impact on students' well-being)
- Embed professional competencies and digital skills in programmes of study
- Critically evaluating the overall portfolio of courses
- Addressing inconsistency of student experience, especially on joint honours programmes
- Compartmentalisation of knowledge owing to modularisation
- Employers expecting universities to provide graduates with skills and for these to be verifiable
- Meeting the QAA Quality Code expectation that students are involved in programme design (partnership, co-creation) and compliance with Office for Students Conditions of Registration (for English universities)
- Developing graduates that are
 - Inclusive, respectful, ambitious and open-minded
 - Global, culturally aware citizens
 - Lifelong learners
 - Equipped for research
 - Aware of Sustainable Development Goals

The adaptability of IPA: Context-specific applications

Higher education aims to prepare students for their futures, which may involve challenges and opportunities we have yet to imagine, although it is clear that technology will play a greater role in professional life than it has ever done (Susskind & Susskind, 2022). Focusing solely on discipline-specific knowledge can be limiting; instead, it is more beneficial to emphasise the ability to navigate the unknown, apply knowledge, skills, and experiences to new situations and contexts, and work collaboratively with individuals from diverse disciplinary backgrounds. This approach necessitates a rethinking of the curriculum, particularly in how assessment can be used to foster the professional skills and behaviours we want our graduates to exhibit. As previously discussed, IPA is an adaptable approach to assessment, not a rigid blueprint, and must be tailored to the specific context, as demonstrated by the following examples from four English universities.

Innovative curriculum in Nottingham's Civil Engineering

The undergraduate Civil Engineering programme at the University of Nottingham serves as an exemplary model of innovative curriculum design. According to an external examiner, this approach places the department at the "cutting edge of civil engineering education." The programme team's objective was to develop a curriculum that:

[...] uses industry approaches to personal professional development and problem-based learning to educate the graduates that industry needs. We want our engineers to be independent thinkers, matching creativity with deep technical understanding and to view their constructions thought the lens of their holistic role in society. We have moved away from traditional module-based assessment; instead, assessing at programme level. (B. Turnbull, programme lead)

The details of the curriculum have been published in Turnbull (2020), but in brief the assessments are arranged into three categories:

- Core technical knowledge assessed by standard questions and an advanced synoptic exam that encourages students to see their learning in an integrated way (50% of marks)
- Cross-disciplinary skills assessed by a CPD-style portfolio that embeds professional skills into the curriculum and allows students a degree of choice of workshops (25% of marks)
- Context and application assessed by a year-long group design project that brings together technical knowledge, professionalism and skills; the focus and challenge of the project evolve over the four years (25% of marks)

The overall outcome is fewer, more challenging assessments that better prepare students for the more stretching parts of the course, leading to better degree and employability outcomes:

[students] are contextualising their work to a much greater degree, demonstrating a holistic appreciation of civil engineering concepts and design; they have more interaction with real engineers through the flexibility of the portfolio; they have confidence in their creativity; they have a broader range of skills; they are calmer about time management.

[...] [By] having synoptic assessments the curriculum is more coherent and the exam questions better grounded in engineering principles. [Students] have to show they can use complex maths within engineering problems – it is more authentic. Students have an individual Portfolio that gives them an identity at job interviews. They are used to thinking in a professional reflective way, and employers value that. (B. Turnbull, Programme Lead)

Innovative design of the Data Scientist Apprenticeship Programme at University of Nottingham

In the UK, universities have been encouraged to develop degree apprenticeship programmes aligned with occupational standards (Institute for Apprenticeships and Technical Education, n.d.), offering an alternative route to obtaining undergraduate or postgraduate degrees. In these programmes, students are employed, with 80% of their learning occurring in the workplace (on-the-job training) and the remaining 20% through off-the-job activities such as lectures, seminars, and self-study. This model requires a different approach to teaching, learning and assessment compared to traditional degree programmes; otherwise, there is a perception that apprentices must complete a degree in just 20% of their time, leading to competition between on- and off-the-job learning. Additionally, traditional assessment models are often not well-suited for apprentices, as their siloed nature prevents apprentices from applying their knowledge and skills in an integrated manner, as required in their workplace. In response to these challenges, the Data Scientist Apprenticeship programme team redesigned the programme with separate teaching and assessment blocks. This change has facilitated synoptic assessments that integrate learning from multiple teaching blocks. The programme now includes a single, integrated knowledge test at the end of each year, mirroring the requirements of the apprenticeship end point assessment. The programme now:

- reflects programme-level design
- emphasises assessment for learning rather than assessment of learning
- minimises assessment points
- has no examinations because they could not be authentic
- ensures integration of a range of knowledge, skills and behaviours within assessments, avoiding silos and where possible use real examples from the learners' workplaces.

Innovative first-year module design in Journalism at University of Sheffield

The first year of any undergraduate degree is crucial as it provides students with the foundational knowledge necessary to complete their course successfully and helps level the playing field for students from diverse educational backgrounds. It is essential to capture students' imagination and ignite their passion for their chosen subject early on, as students often engage selectively, particularly in practice-based subjects where practical elements are favoured over theoretical ones. This challenge was addressed by the Journalism team at the University of Sheffield, who developed a comprehensive 120-credit first-year module that seamlessly integrates practical and theoretical teaching. The five assessments in this module are designed to ensure that students demonstrate, in various ways, how theoretical concepts inform their practical work:

- Essay and social media (10% of marks)
- Exams (two exams, 10% of marks each)
- Viva to discuss theoretical concepts in light of their own practice (20% of marks)
- Portfolio with seven news stories and a critical commentary (50% of marks)

Integrating learning and assessment in nursing education at University of Surrey

For healthcare professionals, the skill of self-regulation, defined as “control of one’s behaviour through self-monitoring, self-evaluation, and self-reinforcement” (American Psychological Association, 2018), is fundamental to developing professional practice. This skill involves being aware of one’s behaviour and understanding how seeking and acting on feedback can help achieve goals. Developing self-regulation requires practice, and the Foundation Year Programme in Nursing at the University of Surrey has implemented an IPA approach that prepares students for both undergraduate studies and their future careers.

The programme features a single 120-credit module where learning and assessment are integrated to motivate and encourage feedback-seeking behaviours. A series of low-stakes assessments and feedback opportunities support an assessment-for-learning approach. Students maintain a reflective portfolio and engage in regular meetings with personal tutors to discuss progress, goals, and learning strategies, establishing positive relationships that are vital for fostering assessment for learning. The teacher-learner relationship and the perception of low-stakes, ungraded assessments are key to creating learning opportunities and an environment that facilitates self-regulated behaviours and self-confidence. Students are actively encouraged to reflect on their feedback when setting their own learning goals.

Importantly, opportunities for dialogic feedback are provided through various forums: individualised and reflective feedback with personal tutors who act as coaches, group and peer feedback facilitated in class, and informal feedback at learning cafes.

Integrating knowledge across disciplines: The BAsC global challenges at Brunel

Broadening students’ horizons by allowing them to study subjects outside their core discipline is common practice in many institutions. However, logistical challenges often arise, and students are typically left to make sense of their experiences on their own; without integrative activities built into a programme, it remains a collection of discrete modules. This represents a lost opportunity, as guided discussion and support could help students understand how different subjects inform each other, creating a more cohesive and enriched educational experience.

At Brunel University London, the separation of study and assessment has facilitated a truly interdisciplinary degree programme: BAsC Global Challenges. All students study core topics related to the significant challenges facing the world, supplemented by subjects chosen from a range of disciplines, from engineering to social sciences, based on their interests. A variety of activities—such as ideas labs, discussions, design thinking, and co-creation—are used to integrate this knowledge, enabling students to see how their core subject (global challenges) is viewed through different disciplinary lenses. Assessments are contextualised within global challenges and require students to integrate and apply

their knowledge to real-life problems, often set by external organisations. Consequently, students perceive these authentic assessments as learning opportunities, further developing their thinking and appreciating the importance of collaboration and diverse perspectives in finding solutions that make a difference to society.

The whole is greater than the sum of its parts: The Bristol assessment strategy

Whilst not specifically part of this study, the adoption of integrated assessment by the University of Bristol is worth noting. The institution is aiming to be a UK top 10 university for both teaching and research by 2030, and they have set out a cross-institutional strategy for education and assessment to achieve this that incorporates three priorities for assessment and feedback: (1) Integrated, (2) Designed for all, and (3) Authentic. Their rationale for integration is based on the “principle that the whole is greater than the sum of its parts” with learning outcomes designed to reflect a holistic approach, and they cite many of the benefits of integrated assessment that are discussed in this study (University of Bristol, n.d., para. 10).

Discussion

Overcoming implementation challenges: Collective vision and ongoing communication

While the pedagogic benefits of an integrated assessment approach are well recognised, numerous barriers exist, ranging from system constraints and assessment timings to fostering collaborative academic teams. Academic staff aiming to implement this approach often face significant hurdles and sometimes active opposition. Those experienced in leading the implementation of Integrated Programme Assessment (IPA) have noted that success hinges on involving all stakeholders—academic and professional staff along with students—from the outset to discuss perceived and real challenges and explore solutions. Establishing a collective vision ensures everyone has a stake in its success, which is crucial since an integrated programme necessitates ongoing collaboration for the students' benefit. Interestingly, there is a sentiment that some of this collaborative mindset was lost during the pandemic, leading to a perceived regression in collegiality.

One of the greatest challenges is navigating systems and regulations designed for modular programmes. However, where professional services are willing to collaborate, pragmatic solutions to issues such as student record systems can be found. For instance, the Foundation Year in Nursing at the University of Surrey and the BA Journalism programme at Sheffield University created a single 120-credit module for the first year, allowing for integrated teaching and assessment while operating within their institutions' modular systems. Nevertheless, locally negotiated support can be fragile if it relies on personal relationships that may be disrupted with staff changes. A university-wide solution, understood by both academic and professional staff, is preferable. In all cases, ongoing communication and relationship-building, including by senior management, are essential to maintain a continued collective and accurate understanding of the requirements for programme-level approaches.

Overcoming implementation challenges: The role of senior management

Interest in IPA has primarily emerged from subject areas, yet the backing of university senior management is crucial for smoothing implementation and signalling its strategic importance. Often, this support is indirect, leaving individual subjects to develop and negotiate implementation solutions, which entails additional short-term effort. Our discussions with institutions suggest this is a significant reason why IPA has not been as widely adopted as its benefits would suggest. Recognising the need for a transformative shift, the University of Nottingham has taken proactive steps to provide direct support and incentives. Through its institution-wide Curriculum Transformation project (2022/3-2024/5), the university is expanding upon successful pilot initiatives in academic schools that addressed issues such as assessment overload. Central to this initiative is the iCURATE framework, developed by Dr. Carmen Tomas and Dr. Nick Mount, which facilitates programme-level curriculum design using principles of constructive alignment and evaluative judgement. Notably, the framework incorporates a student co-creation model, where students are trained and employed as interns to collaborate in designing their own programmes, ensuring alignment with educational goals. The final programme design is a negotiated outcome between staff and students. This successful pilot work prompted Professor Katharine Reid (Associate Pro-Vice-Chancellor for Education and Student Experience) to engage all 26 schools in awareness-raising discussions, culminating in a compelling business case that secured support for all schools to (re)design selected programmes over the three-year project period. This comprehensive support includes dedicated roles such as educational developers, project managers, and positions in marketing and career services, as well as provisions for teaching staff buyouts and compensation for student interns.

We are not attempting to redesign the whole portfolio, and we have not “mandated” anything in the sense that we work with schools when they are ready and can see the benefit. In some cases schools are more likely to come on board if they can choose to focus on a small PGT programme, rather than on a large UG programme, and the offer of financial support in a limited time frame has provided a good incentive. Schools have also chosen in which year they would like to join – this has been particularly useful when there has been a need to align with accreditation requirements, for example. Finally, we have been at pains to emphasise that the final design is determined by the school and its students, not by the project team – we provide a framework, resources, support and training, but we do not dictate outcomes. We have found through this approach that we have good engagement from almost all schools across the institution. Our hope is that once the design expertise has been seeded in each school in the institution those schools will be equipped to redesign other programmes in their portfolio. (Katharine Reid, Associate Pro-Vice-Chancellor for Education and Student Experience).

Conclusion: Balancing pedagogical innovation and operational reality

We conclude with a number of recommendations for members of the wider community involved or just interested in curriculum and assessment design (Table 2). Integrated Programme Assessment (IPA) represents a curriculum design approach that addresses several critical issues in higher education, including reducing over-assessment, enhancing alignment between learning outcomes and assessments, promoting authentic and meaningful assessments, and ultimately improving student outcomes (see awarding data in Figure 2). IPA aligns with the principles of sustainable assessment (Boud, 2000) by not only meeting current educational needs but also equipping students with skills for lifelong learning and adaptability in future contexts.

Table 2. Recommendations from the authors for the HE community.

Recommendations forthcoming for the community
The academic community comes together to agree nomenclature and broad principles of programme assessment approaches.
Involve all key stakeholders in the assessment design process: professional services teams (e.g. careers, marketing; quality assurance); alumni; employers, external examiners and professional bodies.
Providing financial resource to buy out the time of leaders to concentrate on curriculum design and paying students involved in design.
Centre design on an evidence base that includes feedback from employers and alumni.
Do not mandate outcomes – allow the programme-level approach to emerge from a well-constructed design process that involved discussions with all relevant academic staff and other stakeholders.

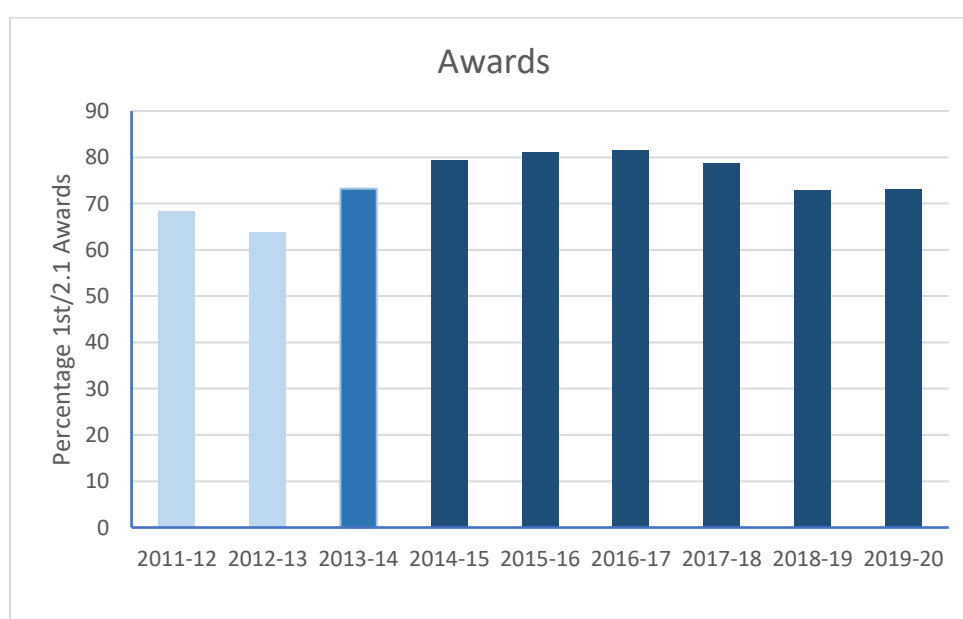


Figure 2. Percentage of 1st and 2.1 degrees awarding on the Biomedical Sciences BSc at Brunel University London before and after the implementation of the IPA strategy in 2013-

14 (which was a mixed year group with some students returning from a work placement and being assessed on the old, modular programme).

This paper illustrates successful implementations of integrated programme assessment across various disciplines in four English higher education institutions. Each case study demonstrates significant curriculum innovations that have positively impacted student experiences and outcomes. Effective pilot initiatives and sustainable changes require robust institutional support that acknowledges and accommodates disciplinary identities. At the University of Nottingham, a comprehensive curriculum framework provides a structured approach for disciplines to develop their programmes, ensuring adherence to core principles of programme-level assessment and minimising tensions between pedagogy and operational considerations.

Furthermore, this paper underscores the broader context of assessment within the curriculum landscape, emphasising that transformative educational work necessitates substantial time and commitment. It acknowledges that pedagogical innovations often face challenges from operational constraints, which can pose formidable barriers unless addressed proactively at the university level. This raises fundamental questions about the prioritisation of educational quality over operational convenience. As higher education faces increased scrutiny, it prompts reflection on whether operational concerns should dictate educational priorities. How can universities balance personalising education by subject while managing administrative complexity? How can disciplinary diversity be effectively accommodated? These questions highlight the critical dialogue needed to bridge the gap between educational theory and practical implementation, ensuring that universities prioritise student learning and readiness for future challenges.

References

- American Psychological Association (APA). (2018). Self-regulation. *APA dictionary of psychology*. <https://dictionary.apa.org/self-regulation>
- Baartman, L. K. J., Schilt-Mol, T. & Van der Vleuten, C. (2022). Programmatic assessment design choices in nine programs in higher education. *Frontiers in Education*, 7. <https://doi.org/10.3389/feduc.2022.931980>
- Biggs J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32(3), 47–364. <https://doi.org/10.1007/BF00138871>
- Boud D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, 22(2), 151-167. <https://doi.org/10.1080/713695728>
- Brunton, J., Brown, M., Costello, E., & Walsh E. (2016). Designing and developing a programme-focused assessment strategy: A case study. *Open Learning: The Journal of Open, Distance and e-Learning*, 31(2), 176-187. <https://doi.org/10.1080/02680513.2016.1187593>
- Charlton, N., & Newsham-West, R. (2022). Program-level assessment planning in Australia: The considerations and practices of university academics. *Assessment and Evaluation in Higher Education*, 48(5), 820–833. <https://doi.org/10.1080/02602938.2022.2134553>
- Charlton, N., & Newsham-West, R. (2024). Enablers and barriers to program-level assessment planning. *Higher Education Research & Development*, 43(5), 1074–1088. <https://doi.org/10.1080/07294360.2024.2307933>

- Charlton N, Weir K, and Newsham-West R. (2022). Assessment planning at the program-level: A higher education policy review in Australia. *Assessment and Evaluation in Higher Education*, 47(8), 1475–1488. <https://doi.org/10.1080/02602938.2022.2061911>
- Charmaz K. (2016). Constructivist grounded theory. *The Journal of Positive Psychology*, 12(3), 299–300. <https://doi.org/10.1080/17439760.2016.1262612>
- Quality Assurance Agency. (no date). *The frameworks for higher education qualifications of UK degree-awarding bodies*. <https://www.qaa.ac.uk/docs/qaa/quality-code/the-frameworks-for-higher-education-qualifications-of-uk-degree-awarding-bodies-2024.pdf>
- Green Gown Awards. (no date). *Green gown awards UK & Ireland*. <https://www.greengownawards.org/green-gown-awards-uk-ireland>
- Harvey, A., Tree, D., & Rand-Weaver, M. (2018). *Advance HE Teaching & Learning Conference 2018: Introducing programme level assessment in your institution*. Advance HE. <https://www.advance-he.ac.uk/knowledge-hub/advance-he-teaching-learning-conference-2018-introducing-programme-level-assessment>
- Harvey A, Rand-Weaver M, and Tree, D. (2017). *Integrated programme assessment (IPA) promotes programme level learning and reduces assessment burden*. HEA Annual Conference 2017: Generation TEF: Teaching in the spotlight. Advance HE. <https://www.advance-he.ac.uk/knowledge-hub/integrated-programme-assessment-ipa-promotes-programme-level-learning-and-reduces>
- Heeneman, S., De Jong, L., Dawson, L., Wilkinson, T., Ryan, A., Tait, G., Rice, N., Torre, D., Freeman, A., & van der Vleuten C. (2021). Ottawa 2020 consensus statement for programmatic assessment – 1. Agreement on the principles. *Medical Teacher*, 43(10), 1139–1148. <https://doi.org/10.1080/0142159X.2021.1957088>
- Institute for Apprenticeships and Technical education (IfATE). (no date). Welcome to the Institute for Apprenticeships and Technical Education. <https://www.instituteforapprenticeships.org>
- Jones, E., Priestley, M., Brewster, L., Wilbraham, S., Hughes, G., & Spanner, L. (2020). Student wellbeing and assessment in higher education: The balancing act. *Assessment and Evaluation in Higher Education*, 46(3), 438–450. <https://doi.org/10.1080/02602938.2020.1782344>
- Medland, E. (2014). Assessment in higher education: Drivers, barriers and directions for change in the UK. *Assessment & Evaluation in Higher Education*, 41(1), 81–96. <https://doi.org/10.1080/02602938.2014.982072>
- Osgerby, J., Jennings, P. D., & Bonathan, A. (2018). Do students see the benefits? An exploratory study of undergraduate accounting students' perceptions of a programme focussed assessment. *The International Journal of Management Education*, 16(2), 327–339. <https://doi.org/10.1016/j.ijme.2018.04.006>
- Programme Assessment Strategies (PASS). (2012). *The case for programme focused assessment*. PASS position paper. <https://www.bradford.ac.uk/pass/resources/position-paper.pdf>
- Ryan A, Judd T. (2022). From traditional to programmatic assessment in three (not so) easy steps. *Education Sciences*, 12(7), 487. <https://doi.org/10.3390/educsci12070487>
- Simper, N., Mårtensson, K., Berry, A., & Maynard, N. (2021). Assessment cultures in higher education: Reducing barriers and enabling change. *Assessment & Evaluation in Higher Education*, 47(7), 1016–1029. <https://doi.org/10.1080/02602938.2021.1983770>
- Susskind R, & Susskind D. (2022). *The future of the professions: How technology will transform the work of human experts*. Oxford University Press. <https://doi.org/10.1093/oso/9780198713395.001.0001>

Torre, D. M., Schuwirth, L. W. T., & van der Vleuten, C. P. M. (2020). Theoretical considerations on programmatic assessment. *Medical Teacher*, 42(2), 213–220.

<https://doi.org/10.1080/0142159x.2019.1672863>

Tree, D. (2019). *STEM conference 2019: Synoptic assessment of Life Sciences at Brunel University London: Ensuring interdisciplinary education by empowering Level 4 students to read primary research papers that span disciplines*. Advance HE. <https://www.advance-he.ac.uk/knowledge-hub/stem-conference-2019-synoptic-assessment-life-sciences-brunel-university-london>

Turnbull, B. (2020) An industry-inspired civil engineering curriculum. *Proceedings of the Institution of Civil Engineers – Civil Engineering*, 173(2), 91–95, <https://doi.org/10.1680/jcien.19.00012>

University of Bradford. (no date). *Programme Assessment Strategies (PASS): Resources*.

<https://www.bradford.ac.uk/pass/resources/>

University of Bristol. (no date). *University assessment and feedback strategy (2022-30)*.

<https://www.bristol.ac.uk/academic-quality/assessment/assessment-and-feedback-strategy/>

Van der Vleuten, C. P. M., & Schuwirth, L. W. T. (2005). Assessing professional competence: From methods to programmes. *Medical Education*, 39(3), 309–317. <https://doi.org/10.1111/j.1365-2929.2005.02094.x>

Van der Vleuten, C. P. M., Schuwirth, L. W. T., Driessen, E. W., Dijkstra, J., Tigelaar, D., Baartman, L. K. J., & van Tartwijk, J. (2012). A model for programmatic assessment fit for purpose. *Medical Teacher*, 34(3), 205–214. <https://doi.org/10.3109/0142159x.2012.652239>

Warburton K. (2003). Deep learning and education for sustainability. *International Journal of Sustainability in Higher Education*, 4(1), 44–56. <https://doi.org/10.1108/14676370310455332>

Wiggins, G., & McTighe, J. (1998). Backward design. In *Understanding by design* (2nd ed., pp.13-34). Association for Supervision and Curriculum Development (ASCD).

<http://dx.doi.org/10.14483/calj.v19n1.11490>