



Towards a National Understanding of the Agile Curriculum

Introduction

This *National Forum Insight* examines the concept of 'Agile Curriculum', emerging in tandem with changing modes of engagement with higher education. The purpose of this Insight is to examine what is meant by Agile Curriculum and how we can work as a sector towards a shared understanding of this term. We propose that this Insight can help to inform further discussions of Agile Curriculum at local, sectoral and national levels.

Context

This Insight emerges from the National Forum's [National Webinar Series 2021](#), in which the Agile Curriculum was explored and discussed. Practitioners and experts shared wide-ranging ideas, facilitated discussion and invited feedback from participants. Webinar recordings and collaboratively authored documents shared during these events have been analysed to develop this Insight. We highlight particularly the input of project leads in the Human Capital Initiative (HCI) Pillar 3 programme. Projects in this programme are focused on the development of shorter curricula, often with microcredentials, as well as partnerships with industry and other stakeholders to design more agile programmes. Additionally, we highlight essential contributions from staff and students, small and medium sized enterprises (SMEs), and other industry and learning development partners.

Reviews of literature and practice in relation to curriculum in higher education reveal that no fixed definition exists; conceptualisations and design approaches are evolving. There is general agreement that curriculum in higher education is broader than subject discipline knowledge taught through accredited programmes and modules. Graduate attributes and transversal skills have been integrated with curricula. Definitions of curriculum may include the processes of learning, teaching, and assessment, and reflect both changing modes of engagement and the diversity of learners in higher education.

Existing programmes at undergraduate and postgraduate levels in Ireland retain high levels of engagement and popularity. Many provide foundations for the careers of thousands of individuals each year. Programme validation, aligned with the National Framework of Qualifications and in accordance with processes overseen by QQI, assures the quality of qualifications to employers. However, changing demographics and modes of participation in higher education, along with rapid technological change, mean that new forms of engagement with higher education are emerging and will likely be accelerated by the Covid-19 pandemic. More agile approaches to curriculum design will be required over the coming years.

Emergent Perspectives on the Agile Curriculum

The discussion of stakeholders as part of the National Webinar Series 2021 reflected a range of emergent perspectives on the Agile Curriculum:

- **Agile responses to change:** Programmes must evolve to focus on leading edge topics (e.g. big data, artificial intelligence, machine learning) but agile curricula needs consideration in most disciplines, not only STEM. Industries such as film, television and animation need many more graduates in Ireland with specialised roles which will not be automated. Programmes should reflect transversal skills in response to increased career mobility. During and post-pandemic, the need for continuing professional development is clear.
- **Less, but more often:** Changing demographics and greater needs to 'top-up' and reskill at regular intervals mean that longer programmes of post-compulsory education may no longer be appropriate for many. We will see increasing demand to return more frequently to education for shorter courses.
- **Accumulation and accreditation:** HCI Pillar 3 Project Leads highlighted increased flexibility in programme design and delivery, with more emphasis on enabling learners to take blocks of learning which can be accumulated and for which they can be accredited through microcredentials.
- **Increased collaboration between higher education and industry:** The pace of technological change in industry risks leaving graduates ill-equipped without greater partnership and collaboration in developing suites of flexible programmes and shorter courses.
- **Authentic assessment and feedback:** Learners need authentic tasks to demonstrate learning, e.g. portfolio-based and project-based assessment. These can be linked with the development of microcredentials.
- **The campus is everywhere:** Innovative forms of delivery are needed; many are being developed already, including various forms of online learning. There is an opportunity for industry professionals to work more closely with faculty. Virtual spaces (e.g. virtual laboratories) will feature more prominently; practice in such spaces allows for problem-solving and valuable learning, thus preparing students more fully for real-world spaces and experiences.



- **Curation not creation:** The abundance of high quality content and information (e.g. open educational resources) now available may offer potential for educators' roles to focus more on the quality and authenticity of learning experiences than the production of course materials.
- **Agility in scheduling:** Greater flexibility in modes of engagement may require changes to traditional semester structures, particularly if students are engaged in programmes with time spent in industry. The implications for working practices in higher education must be acknowledged and carefully considered.
- **Leaner lifelong learning systems:** There is recognition nationally of the significant experience and expertise that exists in the higher education sector in lifelong learning.

Enhancement and greater agility in institutions would see the development of leaner systems, particularly for online learning, so that higher education can respond to the needs of employers and employees and develop flexible modes for learners. Recognition of prior learning (RPL) could be improved to support learners developing career paths and in turn, improving the quality of learning for all, irrespective of learning mode.

- **Agility at the appropriate pace:** Our discussions showed that agility was not necessarily related to speed, but the ability to change effectively in a complex world. This requires meaningful and authentic dialogue between partners and stakeholders. Quality assurance is essential and can be addressed through the evolution of roles in higher education such as industry education liaisons.

Table 1: Characteristics of an Agile Curriculum identified by participants in two National Webinar Series events

Flexible, Responsive, Dynamic	Developed in Partnership, Founded in Collaboration
<ul style="list-style-type: none"> ● Iterative, dynamic, evolving, responsive at pace to emerging, unpredicted needs ● Transformative with more options for learners, cross-discipline opportunities and flexible approaches ● Fluid framework that supports learners across blended realities including blended learning ● Continuously responding and responsive to all stakeholders, using their feedback ● Flexible, stackable modules and mobile credentials that offer choice and options to change constructed, such that changes are easily facilitated ● Facilitates some personalised learning ● Facilitates development of graduate attributes and transversal skills ● Contributes to future-proofing learning for graduates and industry 	<ul style="list-style-type: none"> ● Strong engagement and consultation with stakeholders, including employers, during programme development and provision ● Students are partners in programme development ● Co-creation of curriculum and team-based approach ● Supports multi-disciplinary/multi-faculty curricula ● Shared collaborative learning experiences ● Sector-wide collaboration ● Collaborative programme management ● Attention to meeting stakeholder needs
Teaching, Learning and Assessment	Practicalities, Implementation
<ul style="list-style-type: none"> ● Sound pedagogical principles and learner-centred, with some personalisation ● Interdisciplinary, cross-disciplinary ● Focused on transversal skills and reflective of business contexts where learners will work in the future ● Integrated, innovative, and flexible assessment, multi-dimensional assessment options support attainment of learning outcomes for/as/of learning ● Active and experiential approaches ● Dynamic curriculum delivery through project-based and collaborative learning ● Offers choice, modular approach with different potential learning trajectories ● Includes self-directed learning, autonomous learning ● Accessible, universally designed and student-centred ● Staff empowered to work in partnership with their students to co-create new learning opportunities 	<ul style="list-style-type: none"> ● Maintains and meets quality assurance criteria in higher education ● Flexible and easy to access ● Adopts robust evaluation, research/evidence informed ● Validation and approval timelines reflect agile approach ● Collaborative management of curricula supported by infrastructure and governance ● Agnostic technology/platforms ● Combines tools that allow learning to flourish, readily accessible and time unlimited ● Digital/blended and resource-driven for students to engage in self-directed ways

Defining the Agile Curriculum

We do not propose a formal definition of Agile Curriculum at this early stage of discussion. Table 1 notes the **key characteristics** identified in dialogue with participants and stakeholders.

There is agreement that we need to continue to work to develop a shared national understanding of Agile Curriculum to explore interpretation and implementation of agility, collaboratively and openly across the entire Irish higher education sector. The sector should be supported to work together towards common goals, disseminate best practice and innovation, and engage at national and European levels. Local agility needs to be protected and retained within a national context of agreed best practice and quality assurance. Agile Curricula have the potential to prompt a rethink of how higher education institutions function, particularly following the challenges of the pandemic and being mindful of how the sector can respond to 'wicked' challenges such as the climate emergency. As one participant put it, "*borrowing from biology, agile means flexible, capable of movement, but possessing recognised structure and vital organs*".

Questions for the Future

The purpose of this Insight has been to share perspectives and develop an understanding of the Agile Curriculum in higher education in Ireland, and to begin a longer national discussion about this emergent area of activity. We have identified additional questions for the sector leading out of the initial discussions summarised here:

- What is the understanding of Agile Curriculum within different institutions, and how does this link with existing and emergent institutional goals? Who will develop and lead this work? How can it be made sustainable beyond the initial lifespan of funded projects? Do graduates of agile curricula differ from those of 'traditional' curricula? How agile are institutional systems supporting these new kinds of curricula?
 - What is the role of employers and enterprise in this process, and how does their role evolve in the provision of upskilling and training? How can engagement with enterprise be coordinated and integrated effectively to ensure revision and updating of curricula? How will this process differ between larger organisations and SMEs?
 - How best can we incorporate student and learner voices in an authentic way as we develop agile curricula? Will we see more engagement with higher education during employment rather than frontloading education before employment? How can we grow research into the student learning experience to inform the sector about what is working and what is not?
- When we think about agility, what time frames might we consider: what is the lifecycle of agile programmes or those accredited with microcredentials?
 - How best can we sustain and continue learning around this topic, for example sharing the learning from the HCI Pillar 3 Projects? How best can we continue to collaborate with industry stakeholders in learning and developing agile curricula, and share as we go along?

The National Forum looks forward to continued discussion and collaboration on this key emergent area of practice in teaching and learning in higher education.