



Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

An evaluation of DCU Futures

Focus on Futures: Report 8

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Eemer Eivers, Hadjer Taibi, Anne
Looney, Zita Lysaght and Joe
O'Hara

Centre for Evaluation, Quality and
Inspection / Institute of Education



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Glossary

Acronym/Phrase	Meaning
CA	Continuous assessment.
CBL	Challenge-Based Learning. A pedagogical approach that engages students in a real-life, relevant situation. Students and stakeholders collaborate to define a challenge and develop an environmentally, socially, and economically sustainable solution.
DLA	Data Literacy and Analytics. A required module for Futures programmes.
DCU Futures team	Team responsible for managing the overall implementation of DCU Futures.
Student Summit	An event organised as part of the Futures programme, involving two students from each programme per year and occurring once per semester.
Hackathons	An intense, time-bound form of CBL.
HEI	Higher Education Institutions.
INTRA	INTRA (INtegrated TRaining) is DCU's internship programme.
SALIS	School of Applied Language and Intercultural Studies.
StudentSurvey.ie	A national survey of students in Irish HEIs, collecting views about their experiences of their courses and HEIs.

Course codes and names

Course Code	Course name
AI	Chemistry with Artificial Intelligence
BCES	BA in Climate and Environmental Sustainability
BGE	Biological Sciences General Entry
BP	BSc in Bioprocessing
BPDT	BSc in Psychology and Disruptive Technologies
BPM	BSc in Psychology and Mathematics
CAM	B.Eng in Mechanical and Manufacturing Engineering
CGE	Chemical Sciences General Entry
DBI	Digital Business and Innovation
GC	Global Challenges
PAN	Physics with Data Analytics
PGE	Physics General Entry
SSE	Mechanical and Sustainability Engineering

Introduction

[DCU Futures](#) is a €19.9 million project, designed to transform undergraduate education within DCU. Starting from a base of 10 new programmes, it was intended as a blueprint for broader change within DCU. Given its importance to the wider institution, part of the funds allocated to DCU Futures were used to resource an internal evaluation. The evaluation was intended to complement evaluations of milestones and deliverables by Futures' funders, and to examine three main questions:

- What has changed as a result of DCU Futures?
- On balance, do the positives outweigh the negatives?
- What sustainable and scalable changes can be made to DCU, as an institution?

This is the final report in a series of reports that arose from that evaluation. It was preceded by an interim unpublished report in 2023 and by seven *Focus on Futures* thematic reports. [Focus on Futures reports](#) combined information from surveys, interviews, observations, and DCU administrative data to explore DCU Futures from a variety of perspectives:

- What StudentSurvey.ie can tell us about DCU Futures
- Student Academic Achievement: 2022 and 2023
- Continuous Assessment within DCU Futures
- Challenge-Based Learning (CBL) in DCU Futures
- Transversal Skills within DCU Futures
- Staff views of the DCU Futures initiative
- Challenge-Based Learning: Observation outcomes.

The current report draws on the preceding seven reports to look at Futures holistically. It begins by outlining some research about the process and challenges of implementing change in Higher Education Institutions (HEIs). Next, we provide some background about DCU Futures, and what it means about what and how students learn. We then outline the evaluation methodology and timeline, including how Futures programmes were classified for our evaluation, and then briefly summarise some of the findings from the evaluation. The final section identifies some key themes that have emerged. The themes have implications for how DCU proceeds with the implementation of Futures, but in some cases have relevance to the wider HEI landscape in Ireland.

Implementing change in HEIs

There are growing pressures on HEIs to adapt to technological advancements, to changing societal norms and student needs, particularly in the aftermath of the Covid pandemic. However, effecting change in higher education is complex and has been characterised as similar to trying to “turn a battleship” or “move a graveyard” ([Eckel, 2002](#)), and institutions with long histories and established traditions are seen as especially resistant to change ([Rosenberg, 2023](#)). Implementing change requires both bottom-up engagement, contribution from and enthusiasm among staff, as well as strong top-down institutional support and leadership ([Feixas et al., 2018](#)), and a delicate pacing that is fast enough to deliver benefits but not so rushed that quality is compromised ([Woodgates, 2023](#)).

For change to be truly effective, it needs not only to be implemented but also sustainable. [Bearman et al.'s \(2024\)](#) recent review suggests that effecting long-term change in HEIs depends on strong leadership and staff ability to incorporate innovation into their workload, highlighting the “interplay between funding, intrinsic motivation, workloads, and support mechanisms in sustaining innovative practices” (p.1507). Innovative practice is more likely to be sustained when staff can see that the innovation benefits learners and where there is collaboration and network supports, including mentoring or interdisciplinary aspects. Conversely, change is less likely to be sustained if staff see change as “managerialist demands” (including heavy administrative tasks and high performance expectations), if there is an emphasis on individualism rather than collaboration, or if students resist innovation, ([Bearman et al., 2024](#), [Marques et al., 2024](#)).

Academics’ personal characteristics also matter. For example, some may resist change because of previous negative experiences ([Marques et al. 2024](#)), or because they tend to have a short-term focus (concentrating on the time needed to learn and become competent using new skills, not any potential longer-term benefits) ([Gratz & Looney, 2020](#)). Demographic characteristics such as gender and age are not consistently related to engagement with change initiatives, although there is some evidence that staff with long tenures are more resistant to change ([Chandler, 2013](#); [Gratz & Looney, 2020](#); [Kunze et al., 2013](#)).

Given the known obstacles, [Rosenberg \(2024\)](#) suggests three strategies that can support sustained changes in HEIs. First, create a “start-up culture,” where new ideas can be tested and piloted separately from traditional practices, allowing the freedom to fail and to try again. Second, strengthen ties with local communities and adapt programmes to meet regional needs. Third, focus more on experiential learning, to give students real-world experience and prepare them for future jobs.

What is DCU Futures?

DCU Futures is a €19.9 million project, initially funded from late 2020 until December 2024 under Pillar 3 of the [Human Capital Initiative](#). Pillar 3 supported innovative and agile proposals that would improve capacity within higher education to meet skills needs of the future. The aim of Futures is to redefine undergraduate education for the 21st century, preparing students to deal with an uncertain world, characterised by rapid technological and social change. From an initial intake of 150 students in September 2021, Futures was originally designed to create capacity for an additional 1,000 students, with the aim that its rollout would serve as a blueprint for wider change across DCU. The [Futures model](#) has three key elements, described next:


- changing *what* students learn.
- changing *how* they learn.
- embedding *transversal skills* into the student experience.

Changing *what* students learn

To change what students learn, Futures created 10 new programmes. The programmes were designed to meet national skills priorities, identified through consultation with enterprise partners and with reference to national strategies (e.g., [Future Jobs Ireland 2019](#), [National Skills Strategy 2025](#)). Five of the programmes are entirely new and adopt a Futures approach from the outset (e.g., BSc in Digital Business and Innovation) (Table 1). Another five have a common entry first year that includes some elements of a Futures approach, followed by a specialism built around a Futures approach in second or third year (e.g., general entry Chemistry in first year, specialism in Chemistry with AI from second year onwards).

Table 1: The DCU Futures programmes and specialisms

New programmes (course code)	New specialisms (course code)
BA in Climate and Environmental Sustainability (BCES)	BSc in Chemistry with Artificial Intelligence (AI)
BSc in Psychology and Mathematics (BPM)	BSc in Business with Business Analytics (BBS)
BSc in Psychology and Disruptive Technologies (BPDT)	BSc in Bioprocessing (BP)
BSc in Digital Business and Innovation (DBI)	BSc in Physics with Data Analytics (PAN)
BSc in Global Challenges (GC)	BEng in Mechanical and Sustainability Engineering (SSE)



The Futures model is based on significant industry engagement throughout, from the programme planning phase to co-creation of content. It also includes input from students at programme level and at the level of the overall model. A selection of students attends a *Student Summit* twice a year, at which students network across programmes, share their experiences, and provide feedback that contributes to the monitoring and evaluation of Futures as a whole. In addition, as with other DCU programmes, students are represented on Programme Boards. Boards meet twice each year, and review the structure and content of the programme, learning outcomes and how they are assessed.

Changing *how* students learn

Futures aims to transform the undergraduate learning experience through the use of innovative pedagogies and strong links with enterprise. Key features of Futures pedagogy include:

- the use of [challenge-based learning](#) (CBL).
- immersive learning experiences, interactive learning sessions including the use of artificial scenarios, gamification, and virtual laboratories.
- a strong emphasis on online and asynchronous learning.
- use of a variety of innovative assessment approaches.

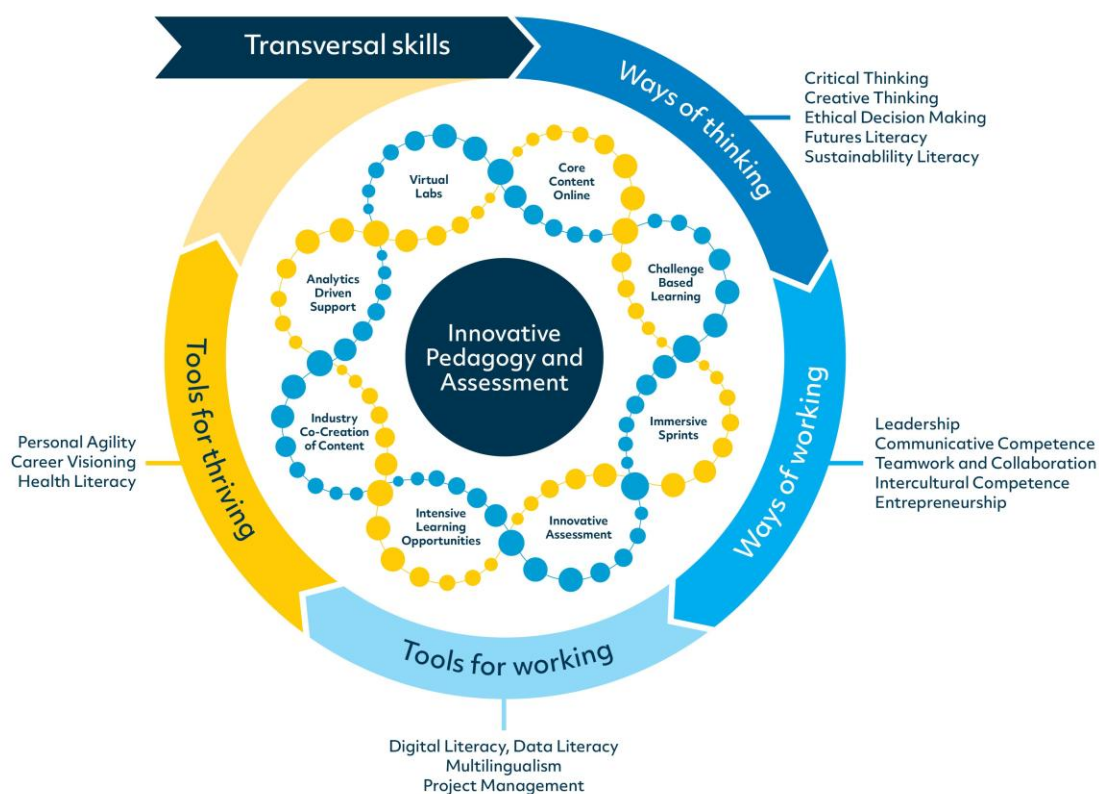
To help implement the above, staff within each Futures programme are supported by a central Futures project team, and receive enhanced supports from DCU's [Teaching Enhancement Unit](#) and [DCU Studio](#).

Embedding transversal skills

Transversal skills are “skills that are not specifically related to a particular job, task, academic discipline or area of knowledge, and that can be used in a wide variety of situations and work settings” ([UNESCO, 2014](#)). They are seen to be especially relevant to higher education in the 21st century, as uncertain labour markets mean that students need more than core subject knowledge and technical competencies ([Doherty & Stephens, 2023](#); [Sá & Serpa, 2018](#)).

To support the integration of transversal skills into Futures programmes, the DCU Futures central team created a Transversal Skills Competence Framework, developed in collaboration with industry partners and colleagues across DCU. It is intended to provide a structure for integrating, assessing, and demonstrating key transversal skills within each programme. All key transversal skills identified were categorised under one of four main headings: Ways of thinking; Ways of working; Tools for working; Tools for thriving (Figure 1).

Figure 1: The DCU Futures transversal skills framework



Discipline Agnostic Competence Statements (DACs) were developed to translate broader and abstract transversal skills into multiple statements of how specific skills might be exemplified. For example, a DACs for the transversal skill of Digital and Data Literacy might state that students should be able to evaluate data sources for credibility and accuracy or to detect misinformation and disinformation.¹ Once DACs were agreed, each programme identified the subset of transversal skills most relevant to their needs, and transformed the related DACs into programme-specific Learning Outcomes. Thus, it is possible (in theory at least) to formally assess specific transversal skills via the related Learning Outcomes.

Transversal skills are embedded within core programme content, and through the use of common modules that are available to all students on Futures programmes. For example, Data Literacy and Analytics (DLA) is a required common module, whereas the Language and Culture programme is an optional one.

¹ At the time of writing, DACs were not available for sharing in public fora. The example provided was created by the authors of this report as illustrative of what they might include.

Evaluation methodology

As noted in the Introduction, the evaluation was intended to complement external evaluations by Futures' funders. Thus, as well as examining efficacy, the nature of changes, and what aspects might be sustainable and scalable at institutional level, extracting formative feedback for internal stakeholders was a priority. Our mixed methods approach drew on a wide variety of data, including surveys, interviews, observations, and DCU "administrative" data, all combining to provide a holistic view of Futures. That noted, the evaluation did not start until December 2022, well after the first cohort of students had enrolled in Futures programmes. This meant we were unable to collect pre-intervention data.

The rest of this section describes key elements of our approach, starting with how we classified Futures programmes for the evaluation, followed by a summary timeline of evaluation activities. The final section provides details for each of our main data sources (e.g., survey data, interviews, analyses of programme content), including the number of respondents, where applicable.

Classifying Futures programmes

Futures is spread over 10 programmes and takes a variety of forms. In light of the small numbers of students and staff when split by programme, we combined programmes into groups, based on the extent of their adoption of the Futures model. All subsequent analyses are based on three categorisations, as follows:

- **Futures Core:** Five Futures programmes that do not have a common entry system (e.g., Digital Business and Innovation).
- **Futures Light:** Five Futures programmes with a common entry first year and a subsequent specialism (e.g., Chemistry with AI).
- **Non-Futures:** All other DCU undergraduate programmes, not part of Futures.

Summary timeline

The evaluation began in December 2022, with some familiarisation activities (document reviews, interviews) (Table 2). Analyses of DCU data from the national StudentSurvey.ie contributed to the development of our own survey for DCU students. In turn, the feedback we received from staff briefings and an interim, internal report informed activities in the second phase of the evaluation, including staff and student surveys, interviews with key personnel, analyses of "administrative" data, and observations of Challenge-Based Learning in practice.

Table 2: Timeline of main data gathering and/or analytical activities.

Timeline	Activity
Dec 2022–Jan 2023	Desk-based analyses of documentation related to the Futures bid, and resulting programmes. Interviews with 10 Programme Chairs (used to inform the evaluation design).
Jan–Feb 2023	Analyses of DCU data from the (national) 2022 StudentSurvey.ie.
Mar–Apr 2023	Survey of DCU students (Futures and non-Futures).
May–Jun 2023	Interviews with students who had dropped out.
Apr–Sep 2023	Analyses of two Futures “Common modules” (the required <i>Data Literacy and Analytics</i> module and the optional <i>Language and Culture programme</i>)
Sep 2023	Unpublished interim feedback report.
Oct–Nov 2023	Analyses of DCU data from 2023 StudentSurvey.ie.
Oct–Nov 2023	Analyses of DCU programme-level progression and retention data, 2021/22 and 2022/23 academic years, first and second year only.
Nov 2023–Mar 2024	Analysis of precision marks for 2021/22 and 2022/23 academic years, first and second year only, linked with student-level characteristics.
Mar–Apr 2024	Survey of Futures students.
Feb–Apr 2024	Survey of Futures staff.
Mar–May 2024	Surveys of non-Futures staff.
July–Aug 2024	Common modules: review of student feedback and completion rates.
Sep–Dec 2024	Interviews with staff involved in Futures.
Oct–Nov 2024	Observations of two “cases” of CBL.
Aug 2024–Mar 2025	Writing <i>Focus on Futures</i> reports.

Main data sources

In this section, we describe our main data sources (including surveys, interviews, observations and desk-based analyses of some elements of the Futures model).

Surveys

We drew on three main types of survey data:

- The 2022 and 2023 cycles of the national [StudentSurvey.ie](https://www.student.ie).
- In-house surveys of students, administered in 2023 and 2024.
- In-house surveys of staff, administered in 2024.

All surveys designed for the evaluation were delivered using the Qualtrics online survey platform. Samples of each and summary responses can be accessed in the evaluation [appendices](#).

StudentSurvey.ie

The [StudentSurvey.ie](https://www.student.ie) is an annual survey of students attending HEIs in Ireland. It asks students about their academic, personal and social development while in their HEI, and how their institutions provide opportunities and support for this development. Responses are combined to develop 10 “indicators” of engagement (e.g., the extent to which their course emphasised higher order learning activities). Students are also asked if they had considered dropping out of their programme.

Undergraduate first and final year students and postgraduates are surveyed. From the full datasets of approximately 43,000 students in 2022 and 39,000 in 2023, we accessed the responses of first year DCU students. This allowed a detailed comparison of Futures (Light and Core) and non-Futures students within DCU, and comparison with first year students, nationally. However, caution is needed in interpreting findings as relatively few Futures Core students were surveyed in each year (Table 3).

Table 3: Number of DCU students in StudentSurvey.ie, by Futures category

Category	N students 2022	N students 2023
Futures Core	43	58
Futures Light	496	335
Non-Futures	1204	1201

Futures evaluation student surveys

We developed and administered surveys to Futures students in 2023 and again in 2024. To provide a broader context against which to interpret the responses of Futures Light and Futures Core students, the 2023 survey was designed so that it could be completed by any undergraduate DCU student. This allowed us to collect responses from a *comparison group* of students. Our comparison group were not representative of DCU students as a whole. Instead, they were a convenience sample, chosen because they were somewhat like the groups of interest. For example, the comparison group students were typically invited to complete the survey during a class that they shared with a group of Futures students, who were also asked to complete the survey.

Both surveys were almost entirely comprised of multiple-choice questions. As well as some basic demographic details, students were asked about their initial university experiences, views on their course, assessment and CBL, and if they had ever considered leaving their programme. On both occasions, students were presented with an open-ended question, asking for suggestions on how to improve their course. The 2023 survey included some additional multiple-choice questions about their reasons for choosing their course and DCU, and an additional open-ended question on how DCU might be improved.

Fewer Futures students completed the survey in 2024, despite there being a larger pool of students to draw from (Table 4). Two factors may explain this, the first being that many third years were on INTRA work placement at the time of the survey. The second factor is that the 2023 survey was described as a survey of DCU undergraduates, whereas the 2024 survey was described as a survey for Futures students. Thus, first year students on Futures Light common entry programmes who did not plan to opt for one of the Futures specialisms may have completed the survey in 2023, but felt that the 2024 survey did not apply to them.

Table 4: Number of students completing Futures evaluation surveys, by Futures category

Category	2023	2024
Futures Core	113	94
Futures Light	350	166
Comparison group	174	

Staff surveys

We developed slightly different surveys for staff on Futures and non-Futures programmes, but with much common content. Both surveys were mainly comprised of multiple-choice questions covering topics such as use of CBL, assessment practices, and students' transversal skills. Staff from Futures programmes were asked additional questions about their views on Futures, the suitability of aspects of Futures for more general rollout, and some open-ended questions about what was effective in Futures, what was not, and about challenges in integrating transversal skills.

As can be seen from Table 5, relatively few staff from non-Futures programmes completed the survey, meaning their data were interpreted with caution.

Table 5: Number of staff completing Futures evaluation surveys, by Futures category

	N staff
Futures Light	45
Futures Core	29
Unclassified	8
<i>Total</i>	82
Non-Futures	38

Interviews

The evaluation included interviews with students and staff linked to Futures. The interview schedules and related materials (e.g., consent forms) are included in the [appendices](#).

Students

Semi-structured interviews were conducted with eight first year Futures students who had dropped out of their course in 2021/22 or 2022/23. Their small number means that they cannot represent the diversity of the 134 students who dropped out those same years. Seven interviews were conducted via Zoom, and one was conducted via email (at the participant's request). The interviews explored how students chose their course, their thoughts about their course and DCU, why they dropped out and if they had any suggestions for improvements for their course and for DCU.

Feedback at Student Summits

Futures Student Summits are events organised towards the end of each semester, attended by representative students from each Futures programme. Attendance is voluntary and the event is in workshop format, with an emphasis on an engaging participatory model. Attendees know that their input will be shared with others (e.g., Programme Chairs) in an anonymised format. Two Summits were attended by a member of the evaluation team, during which they noted the feedback provided by students and talked with small groups of students about Futures.

Staff

Semi-structured interviews were conducted with five current or former staff members who had in-depth knowledge of aspects of Futures. The interview questions varied depending on the interviewee and their role. Questions that were asked of all interviewees included their views on staff workload, the implementation of Futures, supports, and the potential for scaling Futures across DCU.


Aspects of programme content

Although DCU Futures is comprised of ten different undergraduate programmes, they share some common elements. Thus, we reviewed two common elements of Futures (the DLA and Language and Culture modules). To do so, we drew on data from the pre- and post-topic knowledge check questions incorporated into the DLA, completion rates for both modules, and on student surveys conducted by colleagues delivering the two modules, who kindly shared anonymised data with us. Also, one of the team completed the DLA module “as a student”.

We also examined the use of continuous assessment in each programme. Module specifications for each Futures programme were examined to ascertain the percentage of marks in core programme modules that were allocated via Continuous Assessment. This programme-level information was then linked to student-level precision marks and to programme-level progression and failure rates.

Observations of CBL

The aims of the observations were to understand how CBL was implemented and to identify aspects that were linked with better student satisfaction levels and better group outcomes. Three different “cases” of CBL were observed, the first of which took place online over two days in March 2024, during which 182 students, split into 49 groups, were observed. These observations were treated as a pilot and used to refine our observation protocols.



Our main observational data for CBL is based on two cases of CBL, one observed for one session only, and one for four separate sessions. The observation was conducted by one member of the evaluation team, three colleagues from DCU's Institute of Education and one from DCU's Teaching Enhancement Unit.

[The observation protocols](#) were designed to generate a mixture of quantitative and qualitative data. Thus, observers answered a series of multiple-choice questions about room layout and types of interactions observed, as well as providing a more in-depth and subjective account of what they observed. The protocol had three levels of description:

- A description the room layout and physical environment of the CBL sessions. Observers completed a very short online form, almost entirely comprised of multiple-choice questions.
- “Snapshot” observations of different groups, each lasting 10 to 15 minutes. Observers completed a short online form, mainly comprised of multiple-choice questions.
- In-depth observations of a group, lasting 45 -60 minutes. For this level, observers provided lengthy written descriptions of what they observed, using five main prompt questions as a starting point for their descriptions.

DCU administrative data: achievement and INTRA

The final form of data collected was DCU administrative data. We were given access to student-level, anonymised achievement data from 2022 and 2023 for all DCU students. Our focus was on first and second year only, as Futures did not extend beyond second year for those academic years. The data provided included programme, grades and precision scores, and information about some characteristics such as gender, mature entry, disability, DCU Access,² and domicile.

First and second year marks were examined separately, in part to address the effects of specialisms in Futures Light. To keep groupings as distinct as possible, students who were enrolled on a common entry Futures Light programme, but subsequently chose a non-Futures specialism were excluded entirely from second year analyses. This means that there were far fewer Futures Light second year than first year students (Table 6).

² DCU Access is an initiative targeted at students from economic or social backgrounds that are traditionally underrepresented in higher education.

Table 6: Student numbers, by calendar year, study period, and Futures status

	2022 (1st year)	2023 (1st year)	2023 (2nd year)
Futures Core	79	106	68
Futures Light	696	739	64
Non-Futures	3093	3010	2797

The second set of administrative data was to be based on feedback on INTRA students. Each student on INTRA placement is assigned a supervisor who manages their placement and provides advice, guidance support and feedback. As the end of the placement, the employer (usually the assigned supervisor) is asked to complete a survey about the student's performance.

With institutional approval, and under the aegis of DCU's Placement Office (who oversee the INTRA process), we created a new survey for employers. As well as providing an overall rating of student performance, and of their employability, respondents were asked to rate students on each of eight key transversal skills, chosen as those most frequently identified by Futures programmes as key transversal skills for their students. The management of the survey was conducted by the Placement Office, as part of the overall INTRA process. However, the response rate was extremely low (forms completed in respect of only 13 students on Futures programmes). The very poor response rate and the very small number of responses meant that we did not analyse employer responses. Thus, while we have data from students and from staff on transversal skills, we are missing complementary data from employers. This is a significant gap in our data.


Overview of findings

As outlined in the previous section, the Futures evaluation collected a wide variety of data on a wide variety of topics. The seven *Focus on Futures* reports presented to date have examined discrete aspects of Futures, such as staff views of the Futures model. In this and the next section, we combine content from those reports, from survey data in our appendices, and from our evaluation more generally. Thus, as well as data previously reported, we draw on our own reflections and the reflections of those involved in Futures. We address the three key questions we were asked to answer:

- What has changed as a result of DCU Futures?
- On balance, do the positives outweigh the negatives?
- What sustainable and scalable changes can be made to DCU, as an institution?

When considering what has changed, we refer back to the three pillars of the Futures model, seeking to change **what** and **how** students learn, and to embed **transversal skills** in the student experience. Futures led to the introduction of ten new programmes, expanding the offerings available to students at DCU. The Futures programmes are designed to be innovative and cross-disciplinary, combining traditional fields with emerging ones, such as Chemistry with AI. They were developed in collaboration with industry partners, with reference to national strategies, aiming to reconceptualise the student learning experience and foster real connections between the classroom and industry. In parallel with the development of individual programmes, what might be described as portable toolkits for transversal skills were developed. Programmes have been able to access common modules developed for Futures, such as the DLA and the Language and Culture programme, and to draw on the Transversal Skills Competence Framework. Thus, we can say that **what** some students learn has changed because of Futures.

How students on Futures programmes learn is also different to the traditional HEI undergraduate experience. They have access to virtual labs and have been able to engage in immersive and real-world learning experiences. They are less likely to have been assessed with traditional end of semester exams, and noticeably more likely to have been assessed with tools such as CBL, which if properly implemented can facilitate the application of content knowledge to real-world challenges and help the development of transversal skills. CBL has been adopted by many, but not by all Futures staff and programmes.




Regarding embedded **transversal skills**, the DCU Transversal Skills Framework now provides a structured approach to embedding transversal skills into DCU programmes. Our findings show that DCU staff in general believed that their students were developing key transversal skills, with Futures staff the most positive in their responses. We also used StudentSurvey.ie data to show that Futures students, especially from Futures Core programmes, were far more likely than the average student in an Irish HEI to believe that their programme emphasised the development of key transversal skills. Futures also uses common modules to support transversal skills development. Student feedback on two such modules, the DLA and the Language and Culture programme suggests that they are adding a different dimension to programmes.

In sum, we can say that Futures has changed what and how some students learn, and supported the development of their transversal skills. However, we also need to consider if, on balance, Futures has proven worthwhile and if the model, or parts of it, could be applied more broadly within DCU. To answer those questions, we go back to the start. From conversations with various people involved in the development of the new Futures programmes, it is evident that the process did not always run smoothly, that the lead-in time was seen as far too short, and that this contributed to a perception of a top-down rather than a bottom-up development process. Given a longer development time, the new programmes may have been able to draw more on existing strengths and yet also be more innovative.

Those criticisms noted, the Futures central team and key staff at Faculty and School level have learned from the experience. There is now a model, or rather multiple models, on which to draw from when attempting wider institutional change. The original Futures teams were planning programmes and considering how to embed transversal skills, while also involved in the parallel development of a transversal skills framework. That framework is now in place and is a resource for programme planning rather than a draw on time during a fraught development phase. Prior to Futures, CBL had been used within DCU, but it was unfamiliar to most staff. Now, most have at least some understanding of it, many have used a CBL approach, and there is a slowly growing DCU set of CBL resources, materials, and case studies for wider dissemination.

On balance, we believe the positives of DCU Futures outweigh the negatives, and that many aspects are sustainable and scalable, *if properly resourced* at programme level and retaining some central supports. Concerns remain about increased workloads for staff, particularly regarding the use of CBL and innovative teaching and assessment practices. Further, assessment literacy skills do not develop in a vacuum. To fully reap the benefits of innovative teaching and assessment practices, staff need additional supports. Others have expressed concerns about the fit between Futures and DCU's academic development and promotion



framework. Finally, some staff, especially more experienced staff, remain unconvinced by elements of Futures.

Some concerns arise from how Futures was initially rolled out. If Futures is to be scalable, it seems advisable to adopt a different approach this time, including allowing adequate time to embed change. Also, a phased approach to roll out, allowing time to build capacity and address workload concerns would be helpful. As part of such an approach, it might be preferable to invite expressions of interest for the earlier phases of any roll out.

The answer to the last question regarding the sustainability and scalability of Futures requires more consideration. Some of the concerns highlighted so far need to be addressed to ensure that the positive changes brought by Futures continue beyond its piloting phase. While some aspects can be scaled, this will depend on how resources and support systems can be expanded across DCU. The next section will provide a more detailed analysis of emerging themes that offer more insights into the challenges of scaling and sustaining Futures or aspects of it, and how they can potentially be addressed.

Emerging themes

Here, we reflect on Futures as a whole, drawing together some themes that emerged from the evaluation. Previous *Focus on Futures* reports looked at specific aspects of Futures (for example, the use of CBL within Futures programmes). Here we take a more holistic view, and consider:

- The nature of Futures students.
- What contributes to Futures students fitting in or considering dropping out of their programme.
- How individual and programme characteristics relate to academic outcomes.
- Staff and student experiences of assessment within Futures.
- Gender and Futures.
- Students' transversal skills.
- What is needed to embed a transversal skills model within DCU.
- Staff workload in Futures.
- Staff and student experiences of Challenge-Based Learning.
- Rolling out Challenge-Based Learning.
- Establishing “buy-in” from staff.

The nature of Futures students

Two sources of data suggest that the profiles of Futures students may be a little bit different to that of typical DCU students. First, as part of our 2023 survey of DCU students, we looked at factors influencing course and HEI choice. We found that Futures students were less likely than other DCU students to have been influenced by family advice or to have considered financial supports in their decision to attend DCU. Instead, they were noticeably more likely to have chosen their course because it “sounded interesting” (81% of Futures Core students; Futures Light, 65%; non-Futures, 33%). They were also less likely to indicate they had considered leaving their course due to financial issues. Second, we see from DCU administrative data that across the first two cohorts of Futures students, there were proportionally slightly fewer Access and Widening Participation³ students on Futures than on non-Futures programmes.

Combined, the survey and administrative data suggest that Futures Core students might be slightly more affluent than the general DCU student population. Early in the evaluation, we considered if student address data could be meaningfully linked to area-based deprivation indices (such as the Pobal HP Deprivation Index), to establish if Futures students did in fact differ on socioeconomic indicators. Advice at that time was that Eircode data for students was not always reliable. However, over the course of the evaluation, there have been considerable improvements in data systems within DCU. It may now be possible to examine if Futures students are somewhat more affluent than DCU students from other programmes, to consider why this might be so, and what the consequences might be.


Fitting in and dropping out

Our student surveys show some differences between Futures and non-Futures students in their initial experiences of DCU and of their course, and in how they felt that they fitted in, longer term, as well as differences in consideration of dropout from their course. For example, our 2023 survey showed that relative to their non-Futures counterparts, Futures students were slightly less likely to agree that DCU orientation gave them a good understanding of what DCU would be like, or that the combined DCU and programme orientation meant they quickly understood what their course would be like.⁴

Although they may have initially felt a little more “at sea” than their non-Futures counterparts, our surveys show that by the end of the first

³ In DCU, Widening Participation aims to increase the numbers of students from underrepresented groups, including low income families, mature students, those with a disability, and those who progress to DCU via a Further Education College route.

⁴ The My DCU orientation is the same, irrespective of Futures status, suggesting that the source of the difference is the student or their programme, not the orientation programme.




semester Futures students (especially males on Futures Core programmes) were *most* likely to agree that they felt part of a class group. An exception to this was females on Futures Light programmes, almost one quarter of whom still felt they did not fit in. Our surveys and the national StudentSurvey.ie show that after a settling in period, Futures students were those most likely to be comfortable asking questions in lectures. Futures Core students, in particular, were most likely to agree that academic staff listened to their opinions, and to have discussed their academic performance and career plans with staff. On the other hand, Futures Core students were a little less likely to understand how their modules related to each other.

Despite seeming to settle in, our various student surveys also showed that Futures Core students (especially females) were those most likely to have considered dropping out of their course. The main reasons given were that the programme was not as expected or a wish to transfer to a different programme. For example, over two-thirds of Futures Core first years surveyed in 2024 who had considered dropping out indicated that one of the reasons was that the course was not as expected. The issue of programme not matching expectations also arose in interviews with some students who had dropped out, and during our engagements with students during Student Summits.

In general, students who had seriously considered leaving their programme expressed lower satisfaction with initial DCU orientation, with the combined DCU and programme orientation, and were less likely to feel that they fitted in at the end of the first semester. Those who felt they did *not* fit in at that stage were at least three times more likely than those who felt they fitted in to have considered dropping out, irrespective of programme type. However, the relationship between orientation and considering dropout varied quite a bit by programme type. For example, in our 2023 survey, 59% of non-Futures students who had seriously considered dropout nonetheless agreed that DCU orientation gave them a good idea of what DCU would be like, compared to 35% of Futures Light and only 16% of Futures Core students.

The differing perceptions of orientation are not a criticism of DCU's orientation programme, which is largely the same for all students. If the same content is perceived very differently, it may be that the differences derive from the characteristics of students or of their programmes. The "newness" of Futures programmes means that prospective students might find it difficult to understand about career prospects, and (to date) would have been unable to seek advice from a graduate. This means that students are more reliant on course descriptions in the DCU prospectus, which some students we spoke to criticised for using technical language that prospective students might not understand. In sum, for a variety of reasons, the gap between expectation/understanding and reality seems to be larger for students on Futures courses. This may in part explain the



lower satisfaction with orientation, as that is the likely point at which some students begin to realise that they have embarked on something that was not what they expected.

Each new intake of Futures students creates a new source of programme-related information for prospective students (graduate employment rates, INTRA experiences, student testimonials, etc). However, if the Futures approach is to be radically different from a traditional undergraduate experience, that also needs to be communicated to prospective students in a manner that they can understand.


Contributors to academic outcomes within Futures

As part of the evaluation, we accessed DCU administrative data to examine achievement outcomes for the first two cohorts of Futures (2021/22 and 2022/23). As described in the second *Focus on Futures* report, Futures Core students consistently obtained better outcomes than their peers in both Futures Light and non-Futures programmes. As well as higher average precision marks, and higher percentages of H1 or H2.1 grades, they had the lowest failure rates and highest progression rates.

Regarding the relationship between selected student characteristics (gender, mature entry, students with a disability, Access students, domicile) and precision marks, the only consistent differences observed related to gender and domicile. Females and those not originally domiciled in Ireland outperformed their counterparts in almost all programmes in each academic year. These differences mirror a consistent gender gap across DCU and HEIs in general, and a tendency for Irish students to perform slightly less strongly than students from other countries. In contrast, an unexpected finding was that, for *second* years only, Access students in both Futures Core and Futures Light outperformed their non-Access peers. This is in sharp contrast to the usually observed finding (in DCU and nationally) that students from socioeconomically disadvantaged backgrounds perform less strongly than do their more advantaged peers. That noted, the number of students in the Access category was very small (as was the performance gap), meaning considerable caution is needed in drawing conclusions from the limited data we have.

A key element of Futures is a shift from traditional exams to more *authentic* forms of assessment, such as CBL, and a stronger emphasis on continuous assessment (CA). Therefore, we looked at the relationship between student outcomes and the relative emphases that Futures programmes placed on CA (%CA),⁵ covering first and second year for the 2023/24 academic year. For first year, the %CA ranged from 67% to

⁵ For each programme, %CA was calculated by examining the percentage of marks within each core module that was allocated by CA, and then weighting each module by ECTS to establish an overall percent of marks for the year allocated by CA.




100%, with 12% of students (two programmes) assessed entirely by CA. For second year, the %CA ranged from 36% to 100%, with far more students (36%) assessed entirely by CA. We found a weak positive correlation between %CA and precision marks in first year and a moderate link in second year (i.e., student marks increased slightly as the marks allocated by CA increased). Also, %CA was positively linked with lower failure rates and higher progression rates, especially amongst first years. This suggests that, as used in Futures, CA does not seem to lead to significant grade inflation, but can act as a “safety net” for students, helping to reduce failure rates and supporting progression.

Staff and student experiences of assessment

In the preceding section, we examined the link between CA and student achievement outcomes. Here, we examine staff and student *experiences* of assessment, and examine the use of different forms of assessment, drawing mainly from our third and fourth *Focus on Futures* reports. Relative to other DCU programmes, assessment of Futures students placed a stronger emphasis on groupwork, lab work, CBL and Loop quizzes. Relative to non-Futures and other Futures programmes, portfolios featured strongly within Futures Core while exams still featured strongly within Futures Light.

Given differences in how students are assessed in Futures, and Futures’ emphasis on innovative assessment approaches, it is perhaps unsurprising that three-quarters of staff felt that Futures had changed their views on assessment. Two-thirds also indicated that the Futures model of assessment was better than more traditional models at capturing student skillsets (most of the remainder were unsure, with almost none indicating that Futures was a poorer model). However, almost three-quarters of staff expressed concerns that the Futures approach to assessment added significantly to their workload.

Students also saw many positives. Most were happy with the emphasis on CA, felt it gave a fuller picture of their skills and was fairer and less stressful than exams. Specific to CBL, most agreed that it enabled them to apply information and skills they had learned from their course, and that the overall feedback they received was helpful. Less positively, up to one quarter felt CA was not as accurate as exams, views were very mixed on whether groupwork was an improvement on what was learned in solo work, and very large majorities (of all DCU students in our survey) felt that groupwork could be stressful and that some did not contribute. Futures Core students were most likely to think that too much of their work was assessed by groupwork, with just over half agreeing that this was the case, while females on Futures Core programmes were those most likely to agree that some team members did not contribute appropriately during groupwork or during CBL.



Although we sought staff and student views on the variety and frequency of assessment forms, we did not explore the quality of the assessment tasks or rubrics, or of the communication of those to students. The initial plan for Futures envisioned several new assessment methodologies, including computer-based standardised tests, curriculum-embedded assessment, and Situational Judgement Tests. In addition, the plan envisioned institution-wide rubrics to enable self-assessment within structured e-portfolios, online self-assessments to be completed at key milestones and that as part of the development of their transversal skills, students would be supported in honing their ability to give and receive feedback.


Some institutional supports have been put in place, but, for a range of reasons, not all that were envisioned have materialised. Assessing transversal skills requires high levels of assessment literacy and competency, especially when designing unfamiliar assessment activities. Assessment literacy permits the development of tasks and rubrics that are robust enough for students to understand how they work, to understand the task requirements and how relative inputs are gauged and weighted, all of which contribute to trust in their accuracy. Without comprehensive supports to develop staff assessment literacy, we lose some key benefits for students from innovative forms of assessment.

Gender and Futures

As we outlined in our second *Focus on Futures*, female students on Futures programmes typically obtained higher grades and precision marks than their male counterparts, mirroring a gender difference found in DCU and in other HEIs. Despite this, they tended to be more dissatisfied than their male counterparts with various aspects of their courses and college experience, as touched upon in our first, third and fourth *Focus on Futures* reports.

Some of the main gender differences in satisfaction related to interaction with others. Our analyses of the 2022 and 2023 cycles of StudentSurvey.ie show that females on Futures Core programmes were less positive than their male counterparts or other DCU students about the quality of their interactions with academic staff and with other students. Data from the 2022 (but not 2023) survey also showed that Futures Core female students were less likely than their male counterparts to frequently present in class, work with other students or academic staff, or receive feedback on their work, and far more likely to have considered dropping out of their course.

The StudentSurvey.ie included relatively small numbers of Futures students, so we looked more closely at the issues arising from it in our in-house student surveys. In our first survey, we found sizeable gender



differences, with males on Futures Core courses most comfortable asking questions in class and most likely to agree that academic staff listened to their opinions. Our second survey did not include the question asking students if they felt academic staff listened to them, but did repeat the question about interactions in class. Again, we found that Futures male students (Core and Light) remained far more comfortable than their female counterparts asking questions in class. We also found that females on both Futures Core and Light programmes were more likely than males to agree that some of their team did not contribute during groupwork activities or during a CBL event.

As StudentSurvey.ie data had raised concerns about female Futures students and dropout, we looked more closely at fitting in and consideration of dropout. In our first in-house survey, males on Futures Core were far more likely than any other group to report feeling that they “fitted in” or were part of a class group by the end of their first semester, and far less likely to have considered leaving their course. In our second survey in 2024, gender differences related to fitting in had reduced considerably. However, females remained more likely than their male counterparts to have considered leaving their course. Collectively, the various student surveys show that the DCU gender gap for consideration of dropout is slightly larger than that found nationally, and that the gender gap in Futures programmes is larger than the gender gap in DCU.

Of course, thinking about dropout does not necessarily translate into leaving your programme. For example, females typically have higher progression rates than males in Irish HEIs ([HEA, 2024](#)), yet we see from StudentSurvey.ie that they are also more likely to consider dropout. We have only limited data on Futures progression rates, but an unexpected finding was that for the first cohort of Futures students, progression rates from first to second year were slightly higher for males than for females. For the next intake, however, females had higher progression rates.

Thus, for the first year of implementation, female Futures students were most likely to be dissatisfied with their interactions with others, most likely to have considered leaving their course, and slightly less likely to progress to second year. However, we do not know if the first intake was an unusual group of students, if early feedback to staff on observed gender differences contributed to subtle programme modifications, or if other factors were involved. What we do know is that female students on Futures programmes tend to be less satisfied with their interactions with others, and to observe issues with the relative inputs of others when engaging in groupwork. Thus, we refer back to our earlier discussion of assessment and assessment literacy. Improving the quality and/or clarity of rubrics, especially in relation to individual inputs into group activities, may help address some of female students’ concerns.

Students' transversal skills

Embedding, assessing, and evidencing transversal skills are central to the Futures model. It is an aspect of the model that has already been introduced to a number of non-Futures undergraduate programmes across DCU. Our surveys indicate that a large majority of DCU staff in both Futures and non-Futures programmes recognise the importance of transversal skills, believe they can add value to programmes, and are applicable to all DCU programmes. Most, irrespective of type of programme, also felt their students were being equipped with key transversal skills. For example, not one staff member disagreed when asked if their students were being equipped with collaboration skills. However, Futures staff were much more likely to believe their students were developing sustainability literacy and data literacy skills.

To gauge students' views on transversal skills, we drew on data from first year students from the nationally administered StudentSurvey.ie. It reports on 10 "indicators" of student experiences of different aspects of their course and HEI. Some indicators relate to aspects of the HEI environment, but six map reasonably well onto transversal skills in the Futures model. For example, the Quantitative Reasoning indicator maps onto the transversal skill of Data Literacy. Our analyses showed that Futures Core students were more likely than other DCU students or students in Irish HEIs to feel that their programmes emphasised five of the six transversal skills indicators: Higher Order Learning; Reflective & Integrative Learning; Quantitative Reasoning; Learning, Creative and Social Skills; and, Collaborative Learning. Futures Light students also believed that their programme strongly emphasised Quantitative Reasoning, while DCU students in general indicated an above average emphasis on developing Collaborative Learning skills.

We also sought to include real-world employer views of Futures students' transversal skills, drawing on a re-designed INTRA employer feedback form. Our aim was to compare the ratings for Futures and other DCU students, but so few ratings were returned for Futures students that it was not appropriate to use the data. However, the recently agreed [Performance Agreement 2024–2028](#) between DCU and the HEA tasks the Futures Central Team with monitoring progress in key areas related to transversal skills, including employer feedback. We have shared our re-designed form with the Central Team, and it may contribute to those monitoring tasks. Finally, we had hoped to examine student interaction with the MySkills platform and employer views of its usefulness. However, the delayed implementation of the platform precluded those analyses, but will hopefully form part of the tracking of MySkills' efficacy.


Embedding a transversal skills model within DCU

Embedding transversal skills into new or existing programmes can be complex, even where an institutional framework has been developed. In this regard it is of note that the DCU Futures Transversal Skills framework was developed alongside other aspects of Futures, rather than being a ready-made resource available during the programme planning process. From communication with those involved in planning and implementing Futures programmes, the need to contribute to the development and fleshing out of the framework (e.g., finalising DACS and identifying priority skills) while also developing programmes informed by the framework was a source of considerable frustration for some.

Based on replies to open-ended questions in our staff survey, the main obstacles to fully embedding transversal skills within programmes related to a lack of resources and to the additional time needed to explicitly incorporate transversal skills into learning outcomes and assessments. That noted, some survey responses also suggest that a small minority of respondents did not fully understand how the overall transversal skills framework and DACS applied to specific modules and programmes, while others flagged how they felt that not all programme staff (especially newer staff) understood the Futures model or transversal skills. This underscores the importance of providing clarity on what transversal skills are, and how a transversal skills framework might apply to specific programmes. It also underscores the importance of providing adequate supports for staff so they understand how transversal skills can be embedded within modules and programmes and that they have the necessary assessment literacy to design and implement appropriate assessments. Such supports are necessary on an ongoing basis.

There was broad support among staff for the general *concept* of transversal skills, with none indicating that transversal skills should not be rolled out across DCU in any format. However, they were more cautious regarding roll out of a Futures model of transversal skills, with only 38% supporting roll out in current format to all DCU programmes, and 43% supporting roll out to some programmes. Conversely, almost one in five opposed rolling out transversal skills in the current format.

Futures programmes integrate transversal skills in different ways and to varying degrees, including through two shared common modules, the (required) Data Literacy and Analytics (DLA) and the (optional) Language and Culture programmes. To date, over 1000 students have taken the DLA module, with most successfully completing their assigned topics. Student feedback indicates it contributes to improved data literacy, particularly for the topics of Big Data and Data Ethics. Because it is online and has asynchronous delivery, it readily lends itself to scaling up to multiple programmes. However, student feedback suggests that elements may be too easy for data-heavy programmes, while our view is that some



elements might be slightly too advanced for other DCU programmes. One option for scaling up delivery might be to offer differentiated content or levels based on the specific needs of different programmes.


Far fewer students took one of the optional Language and Culture programmes, but most who did also expressed satisfaction with the programme, planned to register for a subsequent programme, and enjoyed how it differed from other aspects of their Futures programme. From the student perspective, the main criticism was the evening timing of the programme. From our perspective, the main criticism was that many who opted to take the Language and Culture programme were already at least somewhat multilingual (although this seems to be a common feature of similar programmes elsewhere [Skrandies, 2016]).

Given the emphasis on live interaction, scaling up and embedding the Language and Culture programme would be complex. However, it could address a very significant skills' gap among DCU graduates and graduates in Ireland more generally. [Eurostat](#) analyses of the EU's Adult Education Survey show that on average across the EU, only 13% of those aged 18-24 were monolingual, but the equivalent figure for Ireland was 32%. Against a backdrop of the lowest level of multilingualism in *any* EU country for this age group, it is worth considering how the Language and Culture programme, or a modified version of it, could be made available more widely within DCU.

Rolling out common modules also requires consideration of how best to manage change processes and secure buy-in from programme teams. One of the lessons from the initial implementation of the Futures model was that introducing changes with limited consultation can militate against those changes becoming embedded. We saw from analyses of our staff surveys that experienced staff were most likely to be sceptical about aspects of the Futures approach. From conversations with those involved during the planning and roll out of Futures, the very short development timeline – externally imposed, and not the choice of the central Futures team – contributed to that scepticism. It would seem advisable to adopt a bottom-up and phased opt-in approach for any further rollout, as will be discussed in a later section.

Staff workload

Staff workload is an important aspect to consider when examining the sustainability of any initiative. DCU Futures was designed as a transformational change initiative, requiring a reimagining of teaching and learning. Such wholesale transformation required considerable investment from staff, especially those who helped to design new programmes in a very compressed timeframe. Existing and new staff were expected to increase engagement with industry as part of programme development and of programme implementation, to incorporate new




technologies (such as virtual laboratories) into teaching, to change their assessment practices to incorporate increased use of continuous assessment and programmatic planning of assessments, and to learn how to use innovative assessment practices such as CBL.

Given the many changes to the *nature* of their workload, it is not too surprising that staff concerns about *increased* workload were highlighted in different elements of our evaluation. In our staff survey, only a small minority of staff on Futures programmes agreed that Futures was a good fit with existing DCU workload frameworks. While they were generally positive about many aspects the Futures approach to assessment, 71% felt that it led to increased staff workload. There was also some ambivalence about how well the Futures model aligned with DCU's academic development and promotion framework, with 43% of staff on Futures programmes unsure of the extent of alignment.

Staff on both Futures and non-Futures programmes were generally quite positive about how DCU provided professional development opportunities to support innovative teaching methods, but the main concern for both groups was that they did not have sufficient time to engage with those supports. Lack of time also featured strongly when staff were asked what they saw as challenges to integrating transversal skills into teaching, and what they would like to change about Futures. Likewise, there was strong support across all staff for the benefits of industry engagement, both for programme design and for helping students to link course content to the real world. However, there was also strong levels of agreement that establishing and maintaining industry engagement was time-consuming. Comments in response to open-ended survey questions also indicate a desire for better and formal structures to support industry engagement.

Very similar issues were raised in our interviews with those involved in Futures, and from our own informal observations of Futures events and conversations with staff on Futures programmes. There seemed to be a consensus that workload levels in the development phase were definitely not sustainable other than for a very short period, and that some goodwill had been lost by the pace at which Futures was introduced (both issues were also raised in responses to open-ended survey questions). There was also agreement that introducing new practices was initially time-consuming, typically became less so with experience and practice, but that CBL was somewhat of an exception to this general rule. Although the workload associated with CBL was perceived to decrease with subsequent iterations, it was seen as remaining more time-intensive than traditional assessment approaches. The need for a better framework to support both establishing *and maintaining* industry engagement was another issue raised in discussions that reflected the survey findings.




None of these workload issues are easily resolved. However, given the centrality of industry engagement to the Futures model, it seems somewhat of a gap that the institution does not offer more structured supports for this activity. It is worth reflecting on how DCU might do more to attract industry input, and what structures could be put in place to recognise and help maintain such input, leading to less reliance on personal contacts with specific individuals. In a related vein, if CBL is to become a widely adopted approach across DCU, the fact that it is perceived to increase workload needs to be addressed. Finally, with regard to promotional frameworks, there is a perceived tension between the time required to invest in innovative pedagogies and the time available for the type of research output that leads to promotional opportunities. While we have been assured that the former represents a promotional pathway, most staff remain unconvinced.

Challenge-Based Learning (CBL)

Innovative pedagogies are central to the Futures model of a reconceptualised curriculum, where students are presented with industry-led and society-informed challenges, and where their learning experiences reflect the real world. One such pedagogy is CBL, which we examined through student and staff surveys (described in the fourth *Focus on Futures* report) and by some case study observations of CBL sessions (the seventh *Focus on Futures* report).

Relative to other DCU programmes, staff on Futures programmes were more likely to have used CBL, and it was more likely to have had an interdisciplinary aspect. Staff linked with Futures programmes were noticeably more likely than those linked with other programmes to have availed of *tailored* supports from [DCU's Teaching Enhancement Unit \(TEU\)](#) or existing TEU resources. Almost all Futures staff who had used CBL indicated that it had at least somewhat changed their approach to designing assessment, learning and teaching, and that the benefits to staff reflected or outweighed the effort required. When asked about CBL from the student perspective, almost all staff who had engaged in CBL felt that students fully engaged with the process, were able to apply what they had learned as part of their programme, and that the benefits to students reflected or outweighed the effort required.

Futures students also expressed positive views about CBL. A large majority agreed that it enabled them to apply information and skills they had learned, and positively rated the overall feedback received. On the other hand, one in five Futures Light students disagreed that feedback from staff and from industry was useful, while two-thirds of Futures Light students and half of Futures Core students agreed that CBL took up a lot of time, relative to how much they learned. While most agreed that they learned from other students on their team, unequal contributions from



peers was an issue for over half of students, especially among second year students and Futures Core female students.


Some support for staff and student views can be found in our observations of CBL sessions. Observers saw generally high levels of student engagement with the Challenge, plenty of teamwork and positive interactions, and relatively little off-task behaviours, although they noted that creating a sense of team when different programmes are combined could be difficult. Generally, they were impressed with student engagement levels over a prolonged session, and commented positively on the quality of feedback provided to students at regular intervals by module coordinators. However, some observers felt that students made insufficient use of the opportunity to listen to and learn from feedback given to *other* groups, and that providing students with a structure to engage in cross-group feedback would be beneficial.

Rolling out CBL across DCU

While our findings related to CBL were largely positive, only a minority of staff on Futures programmes felt that CBL should be rolled out to *all* DCU programmes (although most felt it was suitable for *some* programmes). Those who had used CBL were slightly more positive about rollout than those who had not. Amongst the 40% of Futures staff who had not used CBL, time constraints and inadequate staffing supports were the most commonly mentioned reasons for not doing so. Use of CBL was also linked to teaching experience, with early career staff (fewer than five years) more than twice as likely as experienced staff (10 years plus) to have used CBL with their Futures students.

If CBL is to become more widely used within DCU, challenges remain related to staff buy-in, and the availability of adequate supports and resources. In particular, more experienced staff need to be convinced of its merits and return on time investment. As a starting point for convincing staff, we note that the TEU has developed resources to support staff and students in implementing CBL. The offer of tailored supports, in particular, is an attractive way to encourage engagement with CBL, and there were high levels of satisfaction with the supports provided. However, the level of supports provided to Futures programmes cannot be rolled out to staff more generally without a significant increase in TEU resourcing.

Also, flexibility is key to CBL. Our surveys and observations showed that CBL as implemented within Futures programmes varied widely on dimensions such as duration, interdisciplinarity, industry engagement, and student agency in choice of Challenge and of team. While flexibility is perceived as a positive feature of CBL, novice users can sometimes find flexibility daunting. Scenario-specific advice or tips might be welcome on a variety of topics, such as effective approaches to industry engagement in a



semester-long versus single day event, activities to foster team-building in multi-programme events, or balancing student choice with ensuring that all industry partners have their Challenge addressed.


In a related vein, basic advice on or a checklist of elements of the physical environment that are relevant or necessary could be useful. It was apparent from our observations that the characteristics of the physical environment affected the nature of group interaction. Our observers saw how a lack of accessible charging points reduced time-on-task, and how smaller tables and portable whiteboards facilitated more interaction. Similarly, over one-third of Futures staff surveyed expressed dissatisfaction with the availability of physical spaces in DCU to support innovative teaching and learning. Innovative pedagogies require flexible spaces that facilitate interaction and collaboration, and many spaces in DCU do not meet these criteria.

Finally, we refer again to assessment. Our observers suggested that peer assessment should be a stronger feature of CBL. In our surveys we asked staff what forms of assessment they would like to weight more heavily (in general, not specific to CBL). For both Futures and non-Futures staff, peer assessment was the most prominent target. Peer assessment and feedback can also be a useful tool to address student concerns about unequal contributions from team members. However, it needs scaffolding. Students need to understand how to provide and receive formative assessment, and to have clarity on how more formal peer ratings for CBL and groupwork operate. Although some students have used the Web-PA tool (integrated into Loop) to rate their peers' contributions, conversations with some staff suggest that, as currently configured, it is not fit for purpose. A better tool, and better scaffolding, would seem advised.

Establishing staff “buy-in”

For any HEI change initiative to succeed, staff buy-in and commitment are key. Interviews with staff involved in Futures indicated that the initial design and early implementation phases of Futures faced several significant challenges. The externally imposed tight deadlines and limited opportunity for consultation contributed to the perception of a top-down approach, with communication hampered by the wider disruptions caused by Covid. Programmes were developed prior to the development of a transversal skills framework, meaning that instead of being able to draw on the framework, staff found themselves drawn into its development, adding further to workload.

Staff feedback, detailed in our sixth *Focus on Futures* report, suggests that some frustrations may have also stemmed from broader institutional structures rather than the initiative itself. There was scepticism among staff about the fit between elements of DCU (particularly administrative



processes, academic development and promotion framework, and staff workload models) and the Futures model. In contrast, staff views on the specific supports provided through Futures, such as those from the TEU, DCU Studio, and the Futures Central team, were far more positive. However, a more general issue identified was that almost three-quarters of Futures staff indicated that their workload had increased as a result of Futures, a factor that militates against wider buy-in.

Although we began this section by outlining the initial challenges faced, we nonetheless found plenty of evidence of buy-in from most staff. Most (both Futures Light and Core) expressed enthusiasm about using the Futures model in their work over the next few years. Most, but particularly those in Futures Core programmes, agreed that the Futures model aligns with DCU's mission and that transversal skills are valuable and relevant to all DCU programmes. However, there were some reservations about certain aspects of the Futures model's suitability for rollout. For example, while almost all Futures staff felt that industry embedding and CBL should be rolled out to some or to all DCU programmes, one in five felt that transversal skills, as currently defined, should not be rolled out.

Views also differed by staff level of experience. Newer staff expressed more positive attitudes to different aspects of Futures, were more likely to have used CBL and to have sought additional support from the TEU when doing so. They were more likely to feel that the efforts required for CBL was reflected in the benefits, to have changed their views on assessment because of Futures, and to express enthusiasm about using the Futures model in the coming years.

Sustaining enthusiasm in newer staff and recognising resistance from more experienced staff requires thought. The significant changes introduced by DCU Futures requires new ways of working that may disrupt established DCU systems. Necessary resources and supports, such as those provided by the TEU and DCU Studio, need to be scalable as they are essential for encouraging and maintaining staff buy-in. It is also important to make it clear to staff that what has been learned from the initial implementation phase of Futures is incorporated into the next iteration. Finally, as previously mentioned, rushed or imposed changes can lead to resistance. A more gradual, phased rollout would allow time to build capacity and address workload concerns. It may also be beneficial to invite expressions of interest for the initial phases of the rollout.

Conclusion

DCU Futures, funded by Pillar 3 of the Human Capital Initiative, is DCU's largest teaching and learning change initiative. It aims to transform undergraduate education through educational innovation, industry engagement, digital learning, and a shift from knowledge acquisition to skills development. To complement the external review of all Pillar 3 Human Capital Initiative projects, DCU commissioned an internal evaluation of Futures. This report was the final in a series of thematic reports, following an unpublished interim report in 2023 and seven *Focus on Futures* thematic reports. It provided an overview of the evaluation, presented key findings and addressed the main research questions regarding the changes introduced by DCU Futures, its overall impact, and its potential for sustainability over time and scalability across the university.

Launched during the unprecedented Covid-19 pandemic, DCU Futures faced some challenges which impacted both students and academic staff. The first two cohorts of Futures students, entering in 2021 and 2022, had their Leaving Certificate exams adapted to accommodate disruptions caused by Covid. As a result, their transition into higher education and initial university experiences were unlike those of previous years. The unique Covid-19 context also created difficulties for staff, particularly with communication, in designing and implementing Futures programmes. This and the externally imposed and initially rushed design and implementation of Futures further complicated matters. While these challenges were significant, they were largely overcome as Futures progressed and Covid restrictions lifted.

With this context and background in mind, we now provide summary answers to the main evaluation questions:

- **What changes were introduced by DCU Futures?**
DCU Futures changed *what* students learn by introducing ten innovative, cross-disciplinary programmes developed in collaboration with industry partners. It changed *how* students learn by incorporating virtual labs, immersive learning, and real-world practical experiences, as well as using assessments like CBL instead of traditional exams. It also embedded *transversal skills* through the DCU transversal skills framework and supported the development of the DLA and Language and Culture modules.
- **Do the positives outweigh the negatives?**
Yes, on balance, the positives of DCU Futures outweigh the negatives. The initiative has received strong support from staff within the university. It has created valuable resources and laid a solid foundation for wider implementation within DCU, as well a

wider impact of learnings for other HEIs. While there are still some challenges, particularly with increased staff workloads and some resistance from staff, the overall impact of DCU Futures can be seen as largely positive.

– **What sustainable and scalable aspects can be implemented across DCU?**

Many aspects of DCU Futures, such as transversal skills, CBL, and industry engagement, may be sustainable and scalable, provided certain concerns are addressed and supports are put in place. Change initiatives generally add to staff workload, especially with innovative teaching and assessment methods like CBL. Building necessary supports and resources across the university can help address workload concerns. Innovative assessments like CBL and assessing transversal skills require high levels of assessment literacy, so both staff and students need support to develop these skills. Industry engagement requires clear structures and supports to manage and maintain, such as establishing roles or teams to oversee partnerships and provide staff with the necessary resources to engage with them. Greater buy-in from more experienced staff might be established by demonstrating that additional supports are embedded, and that Futures gradually evolves, learning from the initial implementation. A phased rollout would allow time to build capacity and provide the necessary resources for successful scalability and sustainability.

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