An evaluation of the Active Curriculum Framework, Course Design Intensives, and the Ruskin Modules: How well has the change process worked, what are the lessons for the future, and how can the impact be evaluated?

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Executive summary

In 2021 Anglia Ruskin University (ARU) commissioned research to evaluate the Active Curriculum Framework (ACF), Course Design Intensives (CDI) and the Ruskin Modules (RMs). It had three objectives: to examine how well the change process worked, to identify the lessons for future educational change, and to consider how impact can be evaluated.

The research involved interviews with institutional leaders and operational managers (Change Leaders); interviews with Course Leaders and managers (Course Leaders); and focus groups with staff involved in the development and delivery of RMs. Ethical approval was gained from the School of Education and Social Care Research Ethics Panel in May 2021.

The rationale for change is driven by a strategic desire to update the undergraduate learning experience to ensure it is distinct and prepares graduates the future. ARU staff are generally accepting of the need for change to bring the curriculum in line with sector-wide trends. Some staff, however, would appreciate more evidence of the need to change their courses, when they feel the curriculum has already been reviewed and revised to meet the learning and employability needs of students, employers and Professional, Statutory and Regulatory Bodies (PSRBs).

The ACF identifies eight Educational Dimensions, and eight Learning Literacies, but staff were more aware of aspects of change related to active learning and employability than others. The pandemic appeared to have contributed more to the development of digital literacies, than the ACF.

CDIs were used to bring course teams together, including students and external stakeholders, and support them to make changes to the curriculum, including creating space for the RMs, and to prepare for revalidation. The facilitated process provided time for reviewing the curriculum, and guidance and resources to support the process, and it was broadly welcomed.

RMs are intended to add breadth to the curriculum, and to develop the employability skills of graduates, through inter-disciplinary learning. The views of staff about RMs are diverse, with passionate support being voiced by some, and, at the other end of the spectrum, concerns by others. Staff from courses that have a prescriptive or very full curriculum, and with a strong professional or vocational orientation are the most likely to be unconvinced of the merit of RMs. There is little evidence about why the RMs need to be inter-disciplinary to develop students' employability skills, the main benefits appear to be from students working collaboratively and developing team working and communication skills.

There is some inconsistency between the focus on the course team in relation to ACF and CDIs, and the RMs, which are outside the course context. The rationale for this, and the expected benefits of RMs need to be more clearly articulated and evidenced to assist staff (and potentially students) to understand and value them.

CDIs were successful in achieving their overall goal as the new courses were validated and implemented in 2020-21, and the process was generally experienced to be positive. Staff

valued bringing together stakeholders to learn from each other and develop the course as a coherent student experience with a focus on student outcomes. This developed the ownership of the course team and gave them the capacity to identify and respond to challenges and to make changes to the curriculum. Staff tended to experience the CDIs as curriculum development, rather than staff development, although they did gain understanding about the course, the ACF, and validation through the CDI process. The most frequently stated concerns about the CDI related to the time involved for staff, PSRB requirements, and poor communication within Schools and Faculties about the process of change.

A 'logic chain' (Thomas, 2020) to evaluate the short-term benefits, medium-term outcomes and longer-term impact of the ACF has been developed and used in to evaluate the impact so far.

In the short-term it is expected that:

- Staff collaborate together and with other stakeholders to review the curriculum in line with the ACF.

- Stakeholders develop understanding and ownership of the ACF and course curricula.

- The curriculum is changed in line with the ACF to better meet the needs of stakeholders, and courses are revalidated.

The research found that staff collaborated and reviewed the curriculum together, and developed understanding and ownership of the course, but there was a lack of specificity about the eight Educational Dimensions and eight Learning Literacies. Amongst some staff there was a lack of understanding about what is meant by an active curriculum. Most staff found it to be a positive and even an empowering process, with benefits for their courses. All courses were successfully revalidated.

In the medium-term it is expected that:

- The new curriculum is delivered to students.

- Students benefit from a more coherent learning experience, which embraces active learning, develops graduate capitals, and prepares them for progression into the graduate labour market.

Most staff believed the revised curricula had benefits for students, challenges identified mostly related to students' understanding of and engagement in a more active learning process.

In the longer-term it is expected that:

- Students are well-prepared for the future.

- Employers are attracted to ARU graduates.

- Graduate employment increases.

There is no evidence available at this time about the longer-term impact of the ACF.

The evidence from this research has been used to develop a more detailed evaluation framework for the ACF that can be used to evaluate its impact longer-term, and to include evidence from other stakeholders and sources such as institutional data.

The RMs were developed separately from the ACF and CDI, by a team of passionate and dedicated 'trailblazers'. They have tended to work independently, rather than as inter-disciplinary teams, and peer support sessions have been provided. The process of

developing the modules is time-consuming and has not been included in the workload-allocation model. Colleagues are concerned about teaching large groups using active and inclusive pedagogies online, and about the assessment load. There was also concern about the role of students in supporting the delivery of RMs. Some dislike being described as 'trailblazers' and the competitive approach to ranking the RMs (e.g. number of students signed up). There is an imbalance of RMs across the disciplines, and some colleagues feel that there are not any RMs that are 'relevant' for their students. Other reservations by the wider staff body include poor student engagement and satisfaction, limited staff understanding and promotion of the RMs.

Given the differing views and concerns about the RMs, it is essential to undertake an impact evaluation. A Theory of Change statement and evaluation framework has been developed, drawing on the views of interview and focus group participants. The suggested Theory of Change is:

> *If Ruskin Modules are delivered to Level 5 students in the first trimester of 2021/22, and students attend the RMs, then students will have a positive learning experience, they will develop new knowledge and skills and they will have an opportunity to think differently about themselves and the world. If students benefit from RMs in these ways in the short-term, then in the medium-term they will be more effective learners, be more satisfied with their learning experience, have greater confidence in their personal and professional identities and future goals and they will embrace wider perspectives. In the longer-term students/graduates will be more employable, critical and flexible or open-minded.*

This theory of change, and the associated evaluation framework offering suggested indicators and sources of evidence could be used to inform a formative impact evaluation in the academic year 2021-22, to improve implementation and inform impact evaluation.

In conclusion, this study demonstrates that it is possible to implement significant and extensive change within a higher education institution within a relatively short time frame. Drawing on the evidence presented the following recommendations are made for ARU:

1. Consider reviewing the ACF and identify dimensions and literacies that may need further embedding within the curriculum.

2. Consider collecting feedback from other stakeholders (i.e. other than staff) about the process of using the ACF to review and revise the curriculum.

3. Evaluate the medium-term impact of the ACF, (i.e. its impact on the student experience), using the evaluation framework developed in this research.

4. Evaluate the longer-term impact of ACF on student outcomes, using the evaluation framework developed in this study.

5. Consider using CDIs or a similar model to facilitate periodic course review and revision.

6. Ensure RM leaders have sufficient time and support to develop and deliver the RMs.

7. Review and agree the essential features of RMs: E.g. promoting employability skills or broadening educational experience; inter-disciplinary topics, perspectives or teams; role of problem solving; focus on sustainability.

8. Evaluate the RMS in relation to the short-term benefits and unintended consequences in 2021/22.

9. Use the evidence from the short-term evaluation of the RMs in 2021-22 to revise RM objectives, improve development and delivery of RMs, and to engage a wider staff group in promoting RMs.

10. Revise the proposed RM evaluation framework and undertaken evaluation of medium-term outcomes and longer-term impact on students.

The evidence has been used to develop a checklist for educational change at ARU and in other higher education institutions:

1. Provide clarity about the changes required. Describe the **change**, explain the **rationale**, provide **evidence** for making the change, be explicit about the expected **impact** and how it will be **measured**.

2. Ensure that the proposed initiative or change explicitly contributes to and is likely to achieve the specified intention, and justify the approach taken (e.g. by drawing on evidence and using Programme Evaluation tools to plan your changes).

3. Include the changes in your institutional policies (including the change required, the rationale and evidence, and the expected impact).

4. Communicate effectively about the changes to all stakeholders, including an explicit awareness of the wider context or related issues, and the expected impact.

5. Develop institutional processes to facilitate and reinforce the changes that you are making.

6. Design or utilise a change process that:

   - Has a clear purpose
   - Involves all stakeholders
   - Promotes local ownership by giving participants at least some autonomy
   - Facilitates collaboration bring people together from different locations and groups, and providing time for dialogue
   - Offers guiding frameworks and useful resources
   - Can be implemented flexibly to create a bespoke process for each team
   - Encourages learning and development by participants
   - Allows sufficient time for collaboration, reflection and change
   - Ensures good communication of purpose and process at all levels.

7. Use the change process flexibly to ensure course teams are able to engage meaningfully.

8. Give consideration to time issues: ensure staff and managers have sufficient time to engage with the change process and consider other commitments at particular times of the year.

9. Evaluate the impact of the change process of change using programme theory tools that identify how the change is expected to happen, and impact in the short, medium and longer term, plus unintended consequences.

10. Share the learning from the evaluation, to ensure that future implementation is improved, and to encourage wider staff engagement and support.

Introduction

The research was commissioned in 2021 by the University through the Vice Chancellor's Award funding. Its intention is to evaluate the Active Curriculum Framework (ACF), Course Design Intensives (CDI) and the Ruskin Modules (RMs). It considers how well the change process worked to introduce ACF and RMs, what the lessons are for future educational change, and to consider how impact can be evaluated.

The ACF is at the heart of the university's Education Strategy (2018-2022). The ACF is designed to be applied by course teams to guide course development, approval and review. Course teams were supported to implement the ACF during 2019 by a programme of CDIs and followed up in 2020 by Course Enhancement Intensives (CEI). The CDI process was led by Anglia Learning and Teaching and is a reflective, developmental approach to curriculum design and enhancement, tailored to course team needs (Middleton, Pratt-Adams and Priddle, 2021). The education provision is shaped by a distinctive active, inclusive learning and teaching approach. The interdisciplinary RMs are designed to develop key aspects of the student educational experience that include problem solving, critical reflection and reasoned argument. The RMs underpin the universities' commitment to integrating the six Graduate Capitals, supporting the eight Dimensions of Student Learning and developing the eight Learning Literacies.

The report provides details of the study, the findings and conclusions. The emphasis is on amplifying staff views, but also on creating useful tools to evaluate the longer-term impact of these changes, and to inform future educational change work at ARU, and the sector as a whole.

Research design

Research objectives

The research was designed to address the following objectives:

1. Active Curriculum Framework (ACF) rationale: The rationale for change

2. ACF transformation: The impact on students, staff, courses, and the University – planned and unintended benefits

3. Course Design Intensive (CDI) experience: The process of change – implementation and experience

4. CDI effectiveness: The process of change – effectiveness and continuation

5. The impact of Ruskin Modules (RMs) as a mechanism for delivering planned, institutional change – embracing and enacting change

6. Transforming Pedagogy and the elements of successful change: The implications for ARU and the HE sector on implementing transformative change across a whole institution, juxtaposed with an institutional definition of student success.

Methods

The research utilised a mixed methods design, combining interviews and focus groups, and supplemented by document review.

- Eight interviews were conducted with institutional leaders and operational managers associated with the implementation and delivery of the ACF, CDI and RMs (identified as Change Leaders below).

- Seven interviews with Course Leaders and managers in academic schools (identified as Course Leaders below).

- Three focus groups with a total of 12 participants involved in the development and delivery of the RMs (identified as Focus Group Participants below).

Ethics

The School of Education and Social Care Research Ethics Panel (SREP) awarded ethical approval on 12 May 2021 and gave the project the reference number ESC-SREP-20-235.

Findings

The findings are presented in the following way:

- The rationale for change

- The process of change (CDI) and its impact

- The impact of the ACF (including an evaluation framework)

- The process of developing RMs (and concerns about RMs)

- Evaluating the impact of RMs

The rationale for change

This section explores the views, especially of senior managers and key implementers, of the rationale for the changes implemented, and draws on institutional documentation for additional clarification. It examines the rationale for change overall, and in more specifically the Active Curriculum Framework (ACF), Course Design Intensives (CDI) and Ruskin Modules (RMs).

At the strategic level there is an overall desire to change the learning experience at ARU to ensure it is unique and prepares graduates the future, and this is anticipated to require significant change.

> *Our education provision will be shaped by our distinctive active learning approach, and the use of Ruskin modules to equip our students for the 21st century. Together they represent a radical restatement of the shape of a university education.* (ARU, 2018, p.8)

It was clear from discussions with senior leaders and educational developers that changing the curriculum was integral to the new strategic vision for education. Other more specific

goals were stated by various interviewees, such as creating a 'vibrant and modern curriculum', and to 'create a distinctive pedagogy that is embedded across the curriculum', that would 'engage students in their learning' and 'inspire students and improve their performance', in terms of academic achievement and employment outcomes. These changes and outcomes were envisaged as 'differentiating graduates' and 'giving the university an edge in recruitment', and also contributing to 'advancing and improving society'. A further ambition, to involve students as 'co-creators', was also noted, but it was acknowledged that this needs more work. Thus, the planned changes are informed by Designing our Future 2017-2026 principles and referenced in the Education Strategy 2018-2022 (section 3). Staff are generally accepting of the need for change, to bring the curriculum in line with sector-wide trends.

Senior staff noted that given the scale of the changes needed, a more radical or transformative approach to change was needed, rather than a piecemeal approach, hence the decision to review and revalidate all undergraduate programmes in under a year. Scale however not only refers to the number of courses which needed to be updated, but also to the need to change the institutional 'culture', or working habits and practices, such as changing traditional pedagogical views, encouraging more ownership and innovation in learning and teaching, promoting inter-disciplinary working and placing greater value on learning and teaching within the University. It is noted however that other changes are proposed in the Education Strategy which are not integrated into the ACF, or covered in the CDI (e.g. Strong Start transition programme and Personal Development Tutoring, both of which would contribute to the development of learning communities)

Active Curriculum Framework

> *The Active Curriculum Framework is founded on the concept of active inclusive learning… The framework articulates the **Educational Dimensions** that underpin our work with students with the **Literacies** or competencies we will support them to develop in order to learn effectively in their chosen course and beyond. As a consequence of this holistic course-level approach to curriculum design and delivery our students will develop the **Graduate Capitals** required to succeed in their chosen careers.* (ARU, 2019, p.4).

The Active Curriculum Framework (ACF) brings together and formalises some of the changes that are referred to in the Education Strategy (Section 3), some of which were already being implemented in the university. The ACF identifies eight Educational Dimensions, and eight Learning Literacies.

> *Courses feel overwhelmed – but this provides a framework to help them and develop course and team resilience, and create a more consistent student experience… It is a research informed, collaborative, whole institution, course-based approach, to systematic implementation.* (Interview with change leader)

The ACF covers the 16 dimensions and literacies, but the staff were more aware of some aspects of change than others, for example, the inclusion of Live Briefs was mentioned the most frequently, and the development of Graduate Capitals was also widely acknowledged.

There was also recognition of taking a course-based approach, as opposed to a focus on individual modules, mapping and reviewing assessment across the piece. The process itself fostered collaboration and team building, and although this was tailored to the needs of Schools and course teams, it involved the whole institution (see CDI process below).

The pandemic, rather than the ACF, appeared to have promoted technology-enhanced learning and teaching and the development of digital literacies, and there were mixed views about whether or not the process of change had made teams more resilient or resulted in

changes to both curriculum content as well as pivoting to remote delivery mechanisms during the pandemic.

While senior managers stated that the ACF is research informed, some staff felt that they did not see the evidence for the need to change (indeed this is not detailed in the ACF document, but rather stated (ARU, 2019, p.4)). This was followed up during the evaluation interviews, and it was agreed that the case for change was made in relation to the governance of the university, but not fully communicated to staff. 'The evidence and rationale for change was presented at the Education Committee and the Senate but may not have been fully communicated with university staff' (interview with Change Leader). On reflection, this was because the ACF was perceived to be palatable to staff, and so less emphasis was given to promoting and evidencing the rationale for change to staff (compared to the RMs).

This later point links to the question about whether the ACF is transformative, and senior managers argued that it is intended to be transformative, yet the majority of staff did not perceive it in this way, but rather as reflecting trends in the sector and notions of good learning and teaching; it is not 'that different and not very distinctive'. By developing and adopting the ARU Graduate Capital model, academics now have a framework for developing employability as an outcome of the curriculum experience. This embedded approach based on Graduate Capitals and Live Briefs was mentioned frequently by course teams and may be distinct rather than transformative. It was viewed as a recognition of staff and course commitment to develop the employability of graduates through the use of a specific tool (Live Briefs) rather than as a significant departure. More generally the move towards more active learning was viewed by Course Leaders to be in line with sector developments. Thus, the pockets of resistance identified in this evaluation mainly relate to the timing of the process of change, rather than to the implementation of the ACF.

Changes that caused the most consternation amongst some staff were RMs (discussed below), and changes to the size and number of modules within a course. There is no mention of reducing the number of modules in either the ACF or the Education Strategy, or indeed the transition-breadth-depth model which was mentioned during the interviews. A senior manager however explained that the CDI process was used to move towards larger modules at Level 4, reducing the number of modules offered in the first year of study to address transition issues and to prevent overloading students, especially with assessment tasks. Previously there could be as many as eight 15-credit Level 4 modules, capped at five modules, with many courses moving to fewer. The rationale for this change was not well understood or articulated by many of the staff who had been asked to make changes to their courses and modules, and rather they described 'bundling contents together', although they also described reviewing assessment across the course. The same senior manager also mentioned that the CDI process was used to reintroduce and confirm the major project as compulsory at Level 6; however, this was not commented on in the interviews.

Course Design Intensives

> *Course teams are being supported to implement the Active Curriculum during 2019 through a programme of course design intensives (CDIs) led by Anglia Learning & Teaching. The CDI process is a reflective, developmental approach to curriculum design and enhancement which is informed by the disciplinary context and tailored to the course team's needs.* (ARU, 2019, p.12)

Course Design Intensives (CDI) are mentioned in the ACF as the way in which course teams will be supported to make the changes required, including making space for RMs. The

rationale for using the CDI approach is to provide a space for course teams to come together with other stakeholders, such as students, alumni, employers and professional, statutory and regulatory bodies (PSRBs), to review and develop the curriculum, ensure it conforms with the ACF checklist, and meets the needs of students. One senior manager noted the importance of focusing on the course instead of individual modules to help address low satisfaction with the course reported in the NSS results in the 2010s. The Education Strategy and the ACF both prioritise working at the course level and preparing graduates for the workplace. A strength of the CDI process, as noted below, is that the course team is brought together to reflect on and develop the course.

The rationale of bringing the whole team together with external stakeholders and students to make the changes was not questioned by interviewees, and the process was found to be largely positive (see below). It was acknowledged that the process should be tailored to meet the needs of each School and the courses involved, and this has been largely achieved, again discussed below; the contribution of facilitators and reflective resources to support the process was welcomed.

Ruskin Modules

> *We'll design Ruskin modules (breadth units) that creatively develop the capacity for critical reflection and reasoned argument, integrating the acquisition of graduate capitals with wider societal concerns and challenges, bringing together students from different disciplines around key challenges. Ruskin modules will form a core, credit-bearing part of the curriculum.* (ARU, 2018, p.8).

Initial research about breadth modules across the HE sector, conducted by colleagues at ARU, identified different models in terms of purpose, focus and organisation. The Education Strategy commits ARU to delivering RMs, predominantly to develop the employability skills of graduates. Interviewees suggested that the rationale is not just to develop employability skills through interdisciplinary working, but for students to be better able to articulate the graduate skills that employers are looking for (e.g. in an employment interview situation to be able to give real-world examples). In the Education Strategy, and in some interviews with managers, there is also mention of focusing on 'societal concerns' which, in some interviews, were linked more explicitly to sustainability. Issues challenging society, such as sustainability and climate change, were described by one interviewee as 'wicked problems', which are key challenges that are difficult to solve because of incomplete, contradictory, and changing requirements that are often difficult to identify. This interviewee felt that 'wicked problems' are particularly suitable for the RMs and using an interdisciplinary approach would help to address them. RMs are compulsory for Level 5 students, unless the course is exempt, and provide breadth to the curriculum.

Advocates of RMs describe them in various positive ways, such as 'bold and ambitious', and 'transformative and interdisciplinary'. Other university staff hold a range of views, from being broadly supportive to being highly critical. Staff who are supportive of RMs, including those who are developing a RM, tend to be in disciplines that have a less 'packed' and prescriptive curriculum, and who can see links between their fields and the inter-disciplinary nature of the RMs.

Some course teams, however, felt that their curriculum equips their students for graduate employment in specific fields more effectively than RMs. Teams point to the vocational focus, links to PBRS, non-credit-bearing employability modules, etc, and thus feel aggrieved that they have had to accommodate RMs to achieve a goal less well than they were already doing, and this has necessitated them to either lose course content, or to compress content

into other modules. It should be noted however that these sceptical and critical staff are generally more detached from RMs and have had little or no engagement with specific RMs.

Some staff were more open-minded and opted to 'sit on the fence', and rather than judge RMs now, they would wait and see how students benefitted (or otherwise) from the RMs.

There is little explanation offered in the institutional documents or the interviews as to why RMs should be interdisciplinary to develop students' employability skills. When this aspect of RMs is explored, the rationale is about working with others who may hold different values and perspectives. More frequently RMs are understood to contribute to Graduate Capitals by requiring students to work collaboratively and develop team working and communication skills.

Another issue that could usefully be addressed relates to 'ownership' and community. The ACF together with the CDI process have been effective (see below) partly because they promote ownership and the development of the course and curriculum by students, staff, employers, PSRBs and alumni, to develop students' interaction, academic growth, and Graduate Capitals. Thus, the emphasis of these changes is on the development of a course community and the co-construction of the curriculum which is owned by this group. Conversely, RMs are deliberately situated outside the course, to offer students different disciplinary perspectives and experiences, and to contribute to the development of Graduate Capitals. The rationale for providing alternatives, and the anticipated benefits, needs to be more clearly articulated, as part of a coherent education strategy, to help staff and students understand and value RMs.

In summary, some staff are passionate about RMs, but to achieve wider endorsement RMs will need to be highly successful at achieving their employability goal, and this evidence will need to be widely shared with the university community, to overcome the limitations identified here.

The process of change (CDI) and its impact

The CDI is described in various ways as a process of implementing change. In essence it brought together course teams through a facilitated process to review the course and implement changes in line with the ACF, to ensure that there were no more than five modules at Level 4, space for a RM in Level 5, and an extended project at Level 6.

Key features of the CDI process are:

- A structured framework for change.
- Provision of resources to support change.
- Extended and dedicated time for change.
- Involve the whole course team.
- Involve stakeholders, including students and employers.

The process is expected to:

- Promote local ownership at faculty, school, course and individual level,
- Provide an operational space to develop trust and create a new approach to curriculum and learning,
- Manage the process of change and ensure it is not too overwhelming,

- Provide a rich course team experience,

- Build staff capacity for curriculum and pedagogical development,

- Enable for the new courses to be validated, and

- Facilitate staff to implement the planned changes.

These expected outcomes are important, as the emphasis is on improving the way the team collaborates to enhance the course and develop as teachers. One interviewee said, 'the CDI is a form of course level enhancement – not a punishment!', this suggests it should be a pleasant experience and generate positive outcomes. Of particular note is the emphasis on individual and collective development of the knowledge and skills to teach the revised curriculum actively and inclusively. The process was facilitated by a revised approvals process, which was streamlined, bringing together cognate courses into a single document and approval event, and encouraged Schools to provide examples from specific courses to illustrate how the ACF had been implemented.

CDIs were successful in achieving their overall goal as the new courses were validated and implemented in 2020-21. This section aims to better understand which parts of the process were effective and why. The success of the process is summarised by one course leader:

> *The creation of a new suite of courses was facilitated by the CDI process, as the teaching team was drawn from disciplines with different practices and cultures. The process removed the restrictions, as 'I was in charge'. and offered a collaborative environment in which to develop the courses, integrating aspects of the Active Curriculum Framework such as Live Briefs, and using CDI tools to check the course flow. The Live Briefs provided a way of building in professional expertise and helping students to develop a portfolio of work, which complemented final year projects… The feedback from students via the Staff-Student Liaison Committee suggests that they prefer having this structure to lots of small modules.* (Interview with Course Leader)

The process itself was praised, as it could be tailored to the needs of particular schools and courses: 'It didn't feel that we had to follow a process, so it felt bespoke'. Indeed, a 'light-touch' model was used for courses that only needed to make minor changes and create space for the RMs.

The benefit that was most often talked about was about bringing people together from across a single course to spend time together to learn from each other and develop the course as an entity, rather than a collection of modules, and with a focus on the student experience and student outcomes.

> *They also promoted course team development; it was useful to come together as a course team and look at the entire course rather than specific modules… it provided an opportunity to reconceptualise the curriculum.* (Interview with Change Leader)

It was noted that providing an opportunity to come together was particularly useful for courses taught across more than one campus, and it helped courses to create a stronger course identity.

Comments included: 'Everyone was involved, so it was very democratic', and 'The leadership encouraged ownership'. More specifically, the process promoted collaboration and learning, for example:

> *It was really good to sit in a room together and discuss what we teach, how we teach, and assessment; we learnt a lot. We were able to look at the requirements of professional bodies, and discuss people's research interests,*

and were able to build these into the modules. The process provided space for collaborative design and teaching of modules, and this gave colleagues confidence that they would have more research time as it provided a structure that provided time off for research due to collaborative teaching. (Interview with Course Leader)

The process improved the relationships within course teams, especially across different campuses, and stimulated greater ownership of the course by teaching staff. Relationships, engagement, understanding, and support was also developed with other stakeholders including students, professional bodies, and employers, through the process of being included in the course development process and having time for dialogue.

It makes the course more complete, and it operates as you intended it to – and you own it. The students are happier too. (Interview with Course Leader)

The CDI process and resources, and the ACF itself provided a collaborative framework to develop understanding of the student experience, challenge assumptions and develop new ideas; indeed it was informed by design thinking that embraces a developmental approach.

The resources were helpful; they created a logical map through the process. (Interview with Course Leader)

The process was flexible, and we were trusted and had the power to make changes. We were also able to make mistakes, but help was available in the room, but the process meant we were able to own the changes made. (Interview with Course Leader)

Courses used the process differently to meet their needs. For example, one course talked about:

Focusing on reviewing assessments and learning outcomes, and ensuring alignment… We were already doing active learning and teaching therefore no significant changes were needed. (Interview with Course Leader)

Another course used the process to reflect on 'current trends in academia and labour markets' and build these insights into the course. While most course teams embraced the opportunities provided by the CDI, some were less positive about the process as they did not feel that their courses needed redesigning. This reaction was usually because they had only recently been through a process of review and revision. However, the majority of course teams were positive about the process.

Designers of the CDI process believed that it 'developed people's capacity to be autonomous course designers', as it enabled them to think about 'how to respond to challenges' and it 'gives people permission to make changes to the course'. While some staff did experience the CDIs as a process of staff development, the majority experienced it as curriculum development, rather than staff development to enable them to be more active and inclusive in their teaching. Indeed a few staff noted that they thought they would benefit from more directed staff development to enable them to teach their new courses in new ways. (It was noted that they had received training from Anglia Learning and Teaching on online delivery in summer 2020 using the Course Enhancement Intensive (CEI) process, and this had been time consuming). In addition, staff benefitted by understanding more about the validation process, as described here, although this was not widely acknowledged by course leaders:

All staff benefited, it provided an opportunity for staff to learn about the validation process, and the whole team can now make module amendments, it also gave them a wider view of the course and allowed overlaps between modules to be identified. (Interview with Change Leader)

In summary, most people were positive about the process, and a few commented that similar opportunities for collaborative course reflection should be offered more frequently. Future educational change initiatives should draw on the positive features of the CDI process, and the limitations identified, to contribute to a positive change process.

While the majority of interview participants were positive about the CDI change process, a few limitations were identified and discussed. The most frequently stated concerns related to time, and issues associated with involving PSRBs, and issues associated with poor communication in Schools and Faculties.

Time-related issues identified by participants were that the process was time consuming for those members of staff with leadership roles, while other respondents perceived that the time of the change process was not ideal due to other commitments and responsibilities. Some participants felt that the additional workload was problematic, both for some individual course team members, and for staff with responsibility for more than one course. Some respondents felt the process was too rushed, while others felt it took too long.

> *It is time consuming to get all staff to attend the sessions, or to consult with staff who are unable to attend and to address their worries.* (Interview with Course Leader)

> *It is challenging getting in touch with all staff (such as external examiners, professional bodies, alumni, current students, employers) including partner institutions, especially for a large course.* (Interview with Course Leader)

> *Too many courses going through change at the same time (for person with responsibility for more than one course).* (Interview with Course Leader)

> *There was lots of other change going on at the same time, or other things going on simultaneously.* (Interview with Course Leader)

> *Managers need to be cautious about workload, especially during term-term – some staff have high teaching load e.g. 16-18 hours per week.* (Interview with Course Leader)

> *The change process impacted on research time.* (Interview with Course Leader)

> *The extra workload could result in exhaustion for some staff.* (Interview with Course Leader)

> *Speed of changes put pressure on the team.* (Interview with Course Leader)

> *It was a bit rushed, too many voices could create obstacles, as you had to keep explaining things.* (Interview with Course Leader)

Issues relating to the role of external accreditation were concerns that there was insufficient regard for these external requirements, although there was no evidence that this was the case.

- Role of external accreditation not sufficiently recognised – this is an important facet of employability.

- Lack of appreciation or consideration to course history and requirements (including PSRBs) – strong armed into revalidation, with no evidence supporting the rationale for change.

- The courses had to be re-structured carefully to ensure that they did not lose accreditation
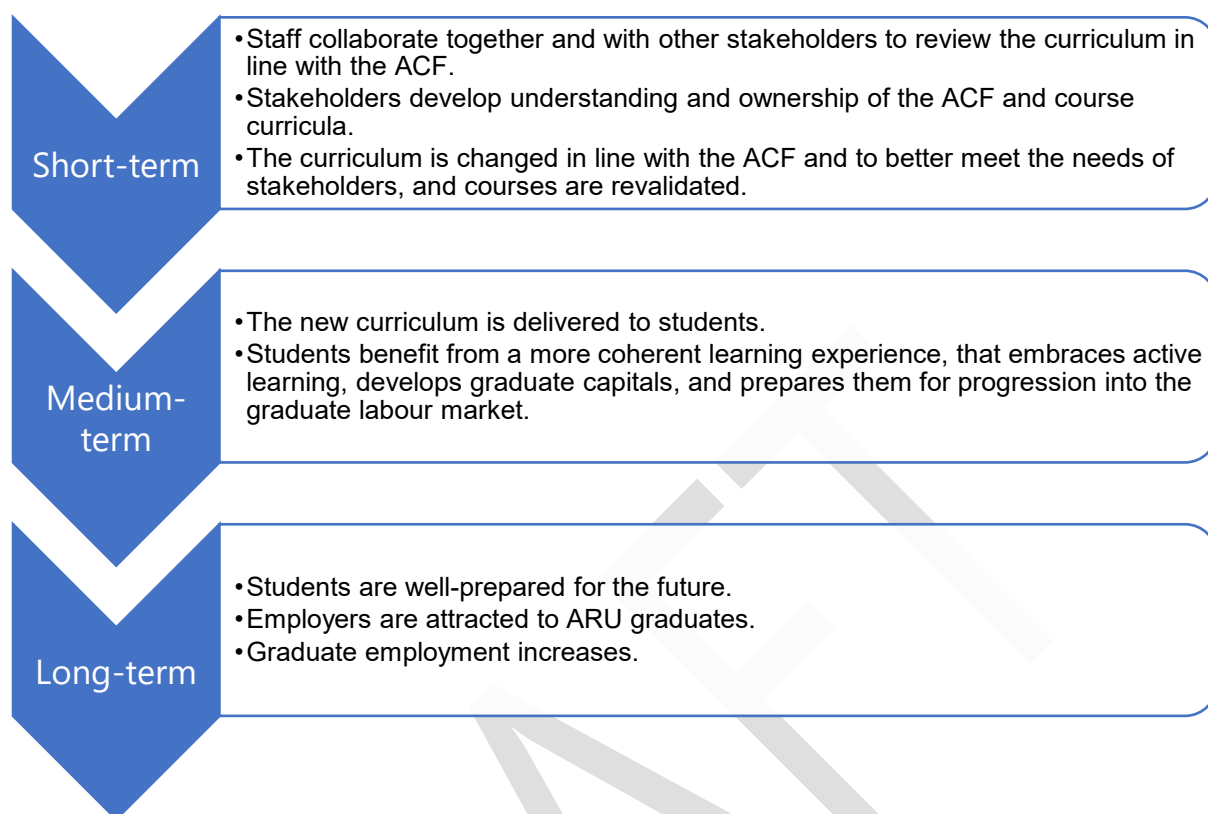
Poor communication within Schools and Faculties about the purpose of the changes and details of what was required, leading to some misunderstanding and some resistance.

- Have used Associate Lectures to provide employability related input – but this requires budget – not sure if this will always be available

- Didn't originally understand or appreciate the scope of the change

- Some module leaders were alienated – why is this happening? – this could lead to more antagonistic attitudes

- Relies on good communication within the faculty – and this was not always the case due to both individual skills and gaps in posts

- Some teams felt that they had to do lots of activities which they did not feel were fully utilized.

- Need to provide rationale for change as people feel ownership of modules – no longer leading a module so people worry about their jobs – this could be overcome by better communication and consultation – a more negotiated process because it could feel rather dictated.

The impact of the Active Curriculum Framework

The impact of the ACF can be theorised using programme evaluation tools such as Theory of Change and Logic Chains (Thomas, 2020). These tools seek to make explicit how an intervention or change is anticipated to achieve impact over time. While the overall impact is often in the longer term, it is useful to specify expected intermediate outcomes, to examine progress towards longer term impact. This approach is particularly helpful when the change affects one stakeholder group initially, and then this group goes on to have an impact on the intended beneficiaries. The ACF requires staff to engage with and use the framework through the CDI process to develop the curriculum, which is then delivered to students. Thus students do not benefit initially, but in the medium-term they should have an improved learning experience, and better outcomes in the long-term, which might also be considered a positive impact for the University. This relationship is mapped here in a Logic Chain by combining a temporal dimension with a broad description of what happens and the types of benefits, outcomes, and impacts that are expected.

Figure 1: ACF Logic Chain demonstrating the expected outputs, benefits, outcomes and impacts for different stakeholder groups

Short-term
- Staff collaborate together and with other stakeholders to review the curriculum in line with the ACF.
- Stakeholders develop understanding and ownership of the ACF and course curricula.
- The curriculum is changed in line with the ACF and to better meet the needs of stakeholders, and courses are revalidated.

Medium-term
- The new curriculum is delivered to students.
- Students benefit from a more coherent learning experience, that embraces active learning, develops graduate capitals, and prepares them for progression into the graduate labour market.

Long-term
- Students are well-prepared for the future.
- Employers are attracted to ARU graduates.
- Graduate employment increases.

This Logic Chain is used to guide the discussion of the evidence from staff about the impact of the ACF, and to share more detailed views about the benefits and outcomes of the ACF. Drawing on this discussion, some recommendations are made, and a more detailed theory of change, indicators and evidence sources are presented to inform the evaluation of the ACF in the future.

Short-term changes and benefits

The primary short-term benefits are related to staff and stakeholders working together, and the changes made to the curriculum. The benefits to the course teams, however, arose largely from the CDI process and are discussed above. The CDI process facilitated course teams, including wider stakeholder groups, to collaborate to review the curriculum, and to develop ownership and understanding of the course.

The ACF provided the framework to inform revisions to curriculum contents and pedagogy. Staff were almost universally supportive of the principles of the ACF. However, although all staff were aware of the ACF, there was a lack of specificity about the eight Educational Dimensions and eight Learning Literacies. The most commonly referred to aspects of the ACF were Graduate Capitals and involving employers in the curriculum development and delivery. Amongst some staff there was a lack of understanding about what is meant by an active curriculum, and more real examples are required to bring it to life. (This could usefully be taken from the validation documents and shared to help develop new staff and enhance courses that have not fully engaged or understood the concepts).

Using the ACF was a largely positive experience, as it allowed staff to think about course design and delivery, and to review the curriculum with a wider group of colleagues, students and employment-related stakeholders. Through the process, staff felt empowered to own the

curriculum, and develop understanding and confidence about the course, rather than just the modules they were involved in. Some staff commented that that felt the ACF was overly prescriptive, and the changes felt rather 'top-down'. This view contrasts with those about increased autonomy and ownership expressed by the majority of respondents. There is no feedback about how other stakeholders experienced the process of using the ACF to review the curriculum.

Some course teams identified a range of benefits to their courses that arose from using the ACF:

- Development of clear learning outcomes and aligning the contents and assessment to achieve them.

- Integrating Live Briefs that allow students to undertake employment-related projects, and, in some cases, designing the course around the Live Briefs to ensure that they are fully integrated into the curriculum.

- Designing a course that better reflects the needs of PSRBs, employers and students. Courses will be more streamlined and aligned with sector and professional standards.

- Created a firm foundation for pivot to online, due to fewer courses and modules, and clearer learning outcomes (although it should be noted that not everyone agreed with this view, see below).

  (From interviews with Course Leaders)

For some teams, reviewing the curriculum with a focus on active learning before COVID-19 and the pivot to online learning was viewed as positive, as expectations of active learning were explicit.

> *The changes stood the course in good stead for responding to the COVID-19 challenge. The learning outcomes were simplified, assessments were reduced with specific and aligned learning outcomes… As staff became more confident with the technology, there were able to deliver the curriculum and learning in more active ways. Indeed, module evaluations were very positive – and students had more opportunities to see staff through drop-ins and timetabled sessions.* (Interview with Course Leader)

Other staff reported that changing the curriculum just prior to the pandemic lockdown was challenging, as it meant they had to adjust to a new curriculum and new mode of teaching at the same time.

However, some course teams felt that they were already delivering an active curriculum, which prepares graduates for employment in a specific field. These course team members were more likely to state that the ACF has not had a huge impact on the course content:

> *The CDI/ACF has not made a significant impact, as for the last eight years we have been making the kinds of changes suggested – e.g. mapping topics, reviewing the range and timing of assessments, embedding changes into the course, using Poll Everywhere, drawing on case studies, etc.* (Interview with Course Leader)

It seems that in addition to the introduction of the ACF, some other curriculum changes (to the number and size of modules) were implemented at the same time, which caused confusion. Changing module credits and making space for RMs were changes that staff were more critical about. For example, there was some concern that larger modules pose greater risks of students failing. One course mitigated the risks of non-submission or submitting sub-standard assessments by introducing two 'check points' per semester, which

have deadlines and presentations. They noted that this is important for providing opportunities for module retrieval.

In summary, all courses were successfully re-validated in line with the ACF and in the prescribed timeframe. Most staff engaged positively with the process, and although time and workload issues were raised, the ACF was embraced, especially changes to embed employability into the curriculum. Other elements of the ACF were not discussed much by staff teams.

Medium-term changes and outcomes

The course teams delivered the new curriculum to students from September 2020. In the interviews, staff reflected on the benefits and outcomes of the new courses for students. It would, however, be useful to consider the student perspective; this will be challenging as the changes coincided with the shift to online teaching as a result of the COVID-19 pandemic.

Staff felt that students had benefited from the curriculum changes in the following ways:

- A distinctive offering

- Improved student outcomes

- Clearer learning outcomes, revised assessment strategy including more real-world assessments

- Less assessment

- Alignment of graduate competencies with professional competencies

- More understanding of the graduate workplace

- Real world of work more explicit in the curriculum due to employer involvement in CDI process, has allowed integration of guest speakers, involvement of employment sector, and generated more understanding of the sector that graduates will enter.

- Students more explicitly involved in the curriculum

- Graduate competencies made more explicit

- Students more able to make informed decisions about their graduate progression

- Students can develop relationships with employers through the course and this will help them with interviews

- More opportunities to work with employers/networking opportunities

- Students like the new contents – more support might be required from careers service and employers

- Feedback from students suggested the re-structuring had been very effective.

- Improved NSS scores (e.g. from 64% to 91% for overall satisfaction, and second course achieved 100%).

Staff also identified some challenges or disadvantages associated with the new curriculum. These mostly related to students' understanding of and engagement in a more active learning process:

- Students don't generally understand the pedagogy of active learning and therefore do not do or value the reading work.

- Students need lectures for the transmission of information and to allow lecturers to explain materials to students, as not all students have the time to engage fully. It is necessary to recognise and be realistic about students' lives.

- Active learning requires students to prepare in advance for sessions – not all students do this.

These concerns about students' undertaking preparatory work to learn actively relate to a flipped learning approach, where students are asked to read or prepare in advance of a session, while other approaches to active learning do not require similar preparation (Pratt-Adams, Richter & Warnes, 2020). These comments therefore support the observations above that not all staff have an in-depth understanding of active learning and the ACF.

One member of staff commented that while some students will benefit from more ownership of their studies as more active participation is required, this may be challenging for some groups of students, such as international students. It was suggested that more training might be required for staff. This also raises the importance of evaluating the experience of the active curriculum on different student groups.

Several staff also noted that failing a large module could be a challenge to progression.

In summary, the ACF has resulted in the delivery of new curriculum to students, with an emphasis on active participation and the development of graduate capitals. The delivery, however, has been challenged due to the introduction coinciding with the pivot to online-learning as a result of the COVID-19 pandemic.

Long-term impact

There is no evidence at this stage that students will be well-prepared for the future, or that employers will be more attracted to ARU graduates, or that graduate employment will increase. Some of the medium-term benefits to students (identified above) are likely to contribute to these long-term impacts. Other long-term impacts might include improved student recruitment due a distinctive curriculum and an active and employment-related curriculum, and strong graduate employment.

A framework to support the evaluation of the Active Curriculum Framework

Drawing on the Logic Chain (Figure 1) and the discussion above, an evaluation framework of indicators and sources of evidence is presented to support the evaluation of the ACF. It would be particularly valuable to seek the views of other stakeholders, including students studying the revised courses, employers and PSRB representatives. It would also be instructive to explore the extent to which the ACF contributes to the long-term impact. Any evaluation should also seek to identify the unintended consequences, both positive and negative, for all stakeholders.

Table 1: Framework for the evaluation of ACF

Evaluation stage	Indicators	Evidence
Implementation	A collaborative change process, such as CDI, is used.	Documents relating to the change process.

	A range of stakeholders (teaching staff, students, alumni, PSRB and employers) are involved in the change process. The curriculum is reviewed, changed, and revalidated.	Validation documentation.
Short-term (March-July 2019)	All stakeholders have a voice. Course teams understand the ACF. Individuals develop increased understanding about the course. Individuals feel empowered to contribute to changing the course. The ACF Educational Dimensions and Learning Literacies are embedded into each course. Individuals feel ownership of the new course. Stakeholders are confident that the course meets their needs and the needs of other stakeholders. The curriculum is modern, vibrant, and distinctive.	Qualitative feedback from stakeholder groups. Validation documentation.
Medium-term (2019/20 onwards)	Students feel included and are active participants in their learning experience. Staff feel confident teaching the course. Students are aware of the course and module learning objectives and how each assessment contributes to achieving them. Students gain work-related experience and graduate skills throughout their course. Employers are involved in course delivery. Students have networks to support progression to employment. Students have opportunities to shape the curriculum. Rates of student continuation, progression, and satisfaction increase	Module reviews. Feedback from student reps. Student surveys. Institutional data.
Long-term impact (2021 onwards)	Students feel well-prepared for the future. Students can name and demonstrate Graduate Capitals and differentiate themselves from others in a competitive labour market. Employers want to recruit ARU graduates. Graduate employment increases. Student recruitment increases.	Students, careers service and employer feedback. Direct approaches/ recruitment visits from employers Institutional data.

The process of developing Ruskin Modules

While RMs are explicitly referred to in the Education Strategy, they are not incorporated into the ACF. Thus, while the CDI process facilitated course teams to implement changes detailed in the ACF, the development of RMs was handled separately.

The development process involved some initial background research (Norval, Baxter & Brown, 2019) about what others in the sector were doing in relation to 'breadth' modules, and an institution-wide consultation exercise on the underlying principles and operational framework, but in other ways the process has been largely organic and involved RM champions, known as Trailblazers. Some of the challenges were openly acknowledged by the change leaders:

> *Developing Ruskin Modules is a wicked problem, and we don't need to have all the answers about how to do it, but this is OK. We are learning to live with ambiguity, and this reflects the emergent nature of RMs.* (Change Leader)

An open event was held for the Trailblazers, where colleagues were encouraged to brainstorm ideas for inter-disciplinary RMs, and which generated 25 specific ideas. From this point on, module leaders have been working to develop their RMs, and the focus has been on nurturing a RM community by keeping in touch and offering development opportunities and activities. For example, RM leaders have benefitted from one-to-one support and collaborative 'open studio' sessions, during which experiences and ideas are exchanged. From this point on, RM leaders have had to develop their modules, and most have struggled to develop an (interdisciplinary) team to collaborate on the module development but have either worked alone or have drawn on informal connections with other staff. And while some RM leaders felt well supported, others felt that they would have benefited from more practical support, indeed some reported that there is 'rhetoric of support', but in reality, they have been left to develop the modules on their own.

At the time the research was conducted, colleagues were concerned about teaching large groups using active and inclusive pedagogies, and about assessment, particularly the assessment of reflective pieces from students, which would be very time consuming. The potential use of students as teaching assistants arose during the research period, but for some colleagues this did not allay fears, but raised further concerns about the role of students.

All of the staff leading RMs are passionate about their modules and the scheme in general, but some colleagues felt uncomfortable about being hailed as 'Trailblazers' and about the competitive approach, such as recruitment ranking, and some colleagues confided that having a successful RM would be a curse (as they would be expected to teach and assess large cohorts of students). The course leaders who participated in the research also noted that developing each RM has been very time consuming, and although once RMs have been developed, module leaders receive a time allocation for teaching, but there is no time allocation for the development process.

It is important to note there is not a balance of modules across the faculties, and the Faculty of Science and Engineering has been noticeably less engaged. This does not necessarily matter, but links to observations by other colleagues that they do not feel that there are any RMs that are particularly relevant to their students. This perhaps points to a fundamental challenge in relation to RMs that course teams have not been involved in, or close to, the process of developing RMs, and cannot see how they align with, or contribute to, the graduate skills sets of their students.

> *As a subject specialist, I'd like to keep them on track… we're focused on getting them employment… I haven't seen any benefit to my subject and it's taking 15 credits… and the students are mostly concerned.* (Interview with course leader)

Views of other staff

While the Trailblazers are enthusiastic about the RMs, other staff have more mixed views. Some staff are broadly supportive about the principle, but have concerns about aspects of implementation, others are opening critical. The key issues raised were:

- Student engagement: students may not be keen on modules not directly relevant to their courses or may not see the point of them. Similarly, they may just sign up for RMs in their discipline area. It was noted that Course Leaders will need to work with students to see the benefits of RMs and help them make appropriate choices.

- Student satisfaction: RMs are taught online, have large numbers of students, and utilise group work. This concern is about students not attending and engaging, and about students not being seen or feeling part of a learning community. These issues could lead to poor student satisfaction.

- Staff understanding and engagement: many staff are not familiar with RMs (and some are critical). Some staff felt they needed development to understand more about them, and to enable them to promote them positively to their students.

(Focus Group discussions)

Evaluating the impact of Ruskin Modules

It is essential to undertake an impact evaluation of the RMs, given the different views about them that were identified in the review. On the one hand, RMs can be seen to offer the potential for an innovative and transformative learning experience, with benefits for both students and the University, and on the other, they can be seen as a distraction to students' core learning.

The proposed evaluation framework utilises a Theory of Change approach and draws on the views shared by the interview and focus group participants. It is envisaged that the framework could be used to inform a formative impact evaluation in the academic year 2021-22, and possibly beyond. This evaluation would provide information about the impact and ways in which the implementation of RMs could be improved.

Theory of Change

A Theory of Change (ToC) sets out how an intervention is expected to achieve impact. The overall impact is often in the longer term, but by being explicit about how the intervention is expected to achieve long-term impact, it is possible to identify intermediate outcomes and indicators of success, which can be used to demonstrate progress towards longer term impact. Thus, evidence can be collected during implementation to inform ongoing decision-making, rather than waiting until the long-term impact has (or has not) materialised.

The primary beneficiary of the RMs is students, and so the ToC and associated indicators of impact are focused here on students. However, the framework could be developed further to include staff groups, the University, and other stakeholders such as employers or the wider community.

The ToC model is developed and applied here to identify implementation requirements, immediate or short-term benefits (whilst students are studying a RM), medium-term outcomes (during the remainder of their undergraduate course), and long-term impact. In the

table below, these intermediate indicators are unpacked, drawing on the comments from the interview and focus group participants, and potential sources of evidence are suggested.

The suggested Theory of Change is:

> *If Ruskin Modules are delivered to Level 5 students in the first trimester of 2021/22, and students attend the RMs, then students will have a positive learning experience, they will develop new knowledge and skills and they will have an opportunity to think differently about themselves and the world. If students benefit from RMs in these ways in the short-term, then in the medium-term they will be more effective learners, be more satisfied with their learning experience, have greater confidence in their personal and professional identities and future goals and they will embrace wider perspectives. In the longer-term students/graduates will be more employable, critical and flexible or open-minded.*

Indicators and evidence

Drawing on the interviews and focus groups, the following indicators and potential sources of evidence have been identified, which could be combined to evaluate the impact of the RMs.

Table 2: Draft evaluation framework of the impact of RM on students

Evaluation stage	Goals	Indicators	Evidence
Implementation	Implemented as planned.	Number of Ruskin Modules running. Number of students signing up compared to allocated to modules. Proportion of students attending compared to other modules. Level of student engagement. Differences between courses, disciplines and student groups.	Institutional data. Attendance data. Staff feedback. Online analytics.
Short-term benefits	Positive learning experience. New knowledge and skills. Think differently about themselves and the world.	Students report learning is fun, exciting, enjoyable, engaging, interesting, energising, playful, freedom, partnership with staff and co-creation of the module. Students develop new knowledge and skills: interdisciplinary knowledge, new perspectives, practical skills, critical skills, digital capability, communication skills with different people including those with different values, team working skills, problem solving skills.	Module evaluation. Qualitative student feedback (e.g. focus groups, listening rooms, survey open questions).

		Students begin thinking differently, e.g. greater love of learning, challenging self, seeing new possibilities, understanding diversity, try new things, question and develop who they are, try new things and different identities.	
Medium-term outcomes	More satisfied learners. More effective learners. Confidence in personal and professional identities and future goals. Wider perspectives.	Continue to feel positive about learning experience at ARU. Apply new skills and knowledge to discipline modules. Greater confidence to try new things.	NSS. Attainment. Feedback from academic staff. Feedback from students. Feedback from other university services (careers, volunteering, SU etc).
Long-term impact	More employable. More critical. More flexible/open-minded.	Employment outcomes. Personal satisfaction/ happiness.	Institutional data. Employer feedback. Alumni feedback.

Conclusions

This study has explored the rationale, experience, and impact of educational change at ARU. Overall, a large amount of change has been achieved in a short time period, and latterly alongside other changes and challenges associated with the COVID-19 pandemic. The rationale for change has been to modernise the University's curriculum and pedagogy, excite and inspire students and to prepare them to be successful graduates in all areas of their lives.

The CDI process was time-consuming and created significant workload for many staff, but the feedback was overwhelmingly positive. It therefore provides an extremely useful model for implementing educational change across a university or similar organisation, which puts collaboration and individual and course team ownership at the heart of the process. An effective process for change should:

- Have a clear purpose,

- Involve all stakeholders,

- Promote local ownership by giving participants some autonomy,

- Facilitate collaboration bring people together from different locations and groups, and providing time for dialogue,

- Offer guiding frameworks and useful resources,

- Be implemented flexibly to create a bespoke process for each team,

- Encourage learning and development by participants,

- Be underpinned and supported by institutional processes,

- Allow sufficient time,

- Minimise workload and be cognisant of commitments or reduce other responsibilities, and

- Ensure good communication of purpose and process at all levels.

By employing the CDI process to implement change, the ACF has been successfully embedded across the undergraduate provision at ARU. There is discussion and debate about whether or not the change is 'transformational', but it is far reaching. The ACF was widely engaged with by staff across the institution, and stakeholders beyond, to inform course review and revision. Although not all elements of the ACF have been equally influential, there has been a strong emphasis on more active student engagement and employability. The views and experiences of staff and change leaders have been used to develop an impact evaluation framework. This should be used as a starting point to discuss the expected impact of the ACF and agree intermediate (short and medium term) indicators, and then to:

- Evaluate the impact of the ACF from the student perspective.

- Evaluate to see if the ACF has achieved its intended long-term impact.

RMs were developed and implemented separately to the ACF and CDI. A self-selected group of RM leaders, with some central support, developed the first suite of RMs. These colleagues are enthusiastic and passionate and have devoted a significant amount of time to the development of the RMs, which offer a varied and exciting portfolio to be delivered from September 2021. There are however practical concerns about the roll-out of the RMs, and broader questions about interdisciplinarity, wider staff engagement, student engagement and satisfaction, and the impact of RMs on employability. It is therefore vital that the RMs are evaluated; a Theory of Change and evaluation framework of indicators and possible sources of evidence has been created based on the views shared through this study. As with the ACF evaluation framework, the RM ToC and evaluation framework provide a starting point for a discussion about what the RMs are expected to achieve in the longer term, and the identification of suitable intermediate indicators of success.

Implications

This study demonstrates that it is possible to implement significant and extensive change within a higher education institution, and some of the challenges that might be experienced. Drawing on the evidence collected from staff, the factors that contribute to effective educational change are:

- Evidence/strong rationale for the change

- Clear principles for change

- Staff buy-in and trust at different levels

- Staff ownership based on reflection and review, and team development

- Values and beliefs

- Leadership commitment (including leadership at different levels – role of middle management was significant in how course teams experienced the process)

- A process for change

- A facilitating structure (e.g. a streamlined validation process)

- Staff resources – protected time, built into workload planning model

- Financial resources

- Culture change

- Staff development

- Tailoring the process to the context

Recommendations

1. The ACF Dimensions and Literacies were not uniformly engaged with; consider reviewing the ACF and identify Dimensions and Literacies that may need further embedding within the curriculum.

2. Consider collecting feedback from other stakeholders (i.e. other than staff) about the process of using the ACF to review and revise the curriculum.

3. Evaluate the medium-term impact of the ACF, (i.e. its impact on the student experience), using the evaluation framework developed in this research.

4. Evaluate the longer-term impact of ACF on student outcomes, using the evaluation framework developed in this study.

5. Consider using CDIs or a similar model to facilitate periodic course review and revision.

6. Ensure RM leaders have sufficient time and support to develop and deliver the RMs.

7. Review and agree the essential features of RMs: e.g. promoting employability skills or broadening educational experience; interdisciplinary topics, perspectives, or teams; role of problem solving; focus on sustainability.

8. Evaluate RMs in relation to the short-term benefits and unintended consequences in 2021/22.

9. Use the evidence from the short-term evaluation of RMs in 2021-22 to revise RM objectives, improve development and delivery of RMs, and to engage a wider staff group in promoting them.

10. Revise the proposed evaluation framework and undertake evaluation of medium-term outcomes and long-term impact on students.

Checklist for future educational change at ARU and in other higher education institutions:

1. Provide clarity about the changes required. Describe the **change**, explain the **rationale**, provide **evidence** for making the change, be explicit about the expected **impact** and how it will be **measured**.

2. Ensure that the proposed initiative or change explicitly contributes to, and is likely to achieve, the specified intention, and justify the approach taken (e.g. by drawing on evidence and using programme evaluation tools to plan your changes).

3. Include the changes in your institutional policies (including the change required, the rationale and evidence, and the expected impact).

4. Communicate effectively about the changes to all stakeholders, including an explicit awareness of the wider context or related issues, and the expected impact.

5. Develop institutional processes to facilitate and reinforce the changes that you are making.

6. Design or utilise a change process that:

   - Has a clear purpose

   - Involves all stakeholders

   - Promotes local ownership by giving participants at least some autonomy

   - Facilitates collaboration by bringing people together from different locations and groups, and providing time for dialogue

   - Offers guiding frameworks and useful resources

   - Can be implemented flexibly to create a bespoke process for each team

   - Encourages learning and development by participants

   - Allows sufficient time for collaboration, reflection and change

   - Ensures good communication of purpose and process at all levels.

7. Use the change process flexibly to ensure course teams are able to engage meaningfully.

8. Consider time issues to ensure staff and managers have sufficient time to engage with the change process and consider other commitments at particular times of the year.

9. Evaluate the impact of the process of change using programme theory tools that identify how the change is expected to happen, and impact in the short, medium and longer term, plus unintended consequences.

10. Share the learning from the evaluation, to ensure that future implementation is improved, and to encourage wider staff engagement and support.

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