



STLR QUALITY MANUAL

Version 1

May 2021



STUDENT TRANSFORMATIVE LEARNING RECORD





Table of Revisions

Document Version/ Date	Revision	Comment
0.1 18/05/2020	Preliminary Draft provided to Head of School, Head of Department and Quality Officer for feedback	
0.2 24/06/2020	 Inclusion of Table of Revisions Inclusion of Table of Tables Included Role Definitions for Moodle Included Student Export and Transcript Process Included Competency Data Record Store Management Process Inclusion of Four (4) Appendices for Four (4) User Guides Figure 3 revised to reflect altered Transcript management process Inclusion of STLR Suggestion Box for Students and Staff Inclusion of 'Step 0 – Auto enrolment of students in Banner' STLR & GDPR compliance Inclusion of Reference to Final STLR Activity Report for Academic Year 2019_20 Inclusion of Moodle Mapping 	Included in Section 2.4 Section 7.3.12 Section 7.3.18 Appendices are set out in Table 3 (Section 7) Figure 3 (Section 7) Section 9 Section 7 Section 2.5 Related Documents Appendix 11 Section 7.3.2 and Appendix
0.3 03/05/2021	Inclusion of all User Guides Update ITB references to TU Dublin Inclusion of quality control – that is all changes to exports and transcripts must be approved by Registrars and Quality Officer	Included in appendices Throughout document Included in 7.13.5
1 09/05/2021	Version 1 for Registrar's & Quality Officer's Review	





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5. Related Documents

- 1. Final Staff Presentation 20.09.2019
- 2. Final STLR Activity Report for Academic Year 2019_20
- 3. Moodle Plug-in for STLR, User Acceptance Testing (UAT) Workbook Master Version 1. April 2020
- 4. Moodle Plug-in for STLR, Final UAT Results Due end June
- 5. Moodle User Guides
- 6. Report (Presentation) to CROI Group, Blanchardstown Campus, June 2018
- 7. Review of STLR Initiative 2018/2019, Proposed Implementation Plan and Budget Request for 2019/2020
- 8. Student Transformative Learning Record (STLR) Activity During Semester 1 2019/2020
- 9. Student Surveys conducted in 2019 and 2020 TBC
- 10. Test IDs Assigned to Testers V1 04.05.2020 (Spreadsheet)
- 11. Transformative Student-Centred Learning (Transform-EDU Submission 20-09-2018) (2)
- 12. Tracking Emails (Spreadsheet) sent to Enovation Support during UAT Phase 07.05.2020
- 13. UAT Update 19/05/2020
- 14. TU Dublin Outline Strategic Plan 2030 (Presentation October 7th 2019)
- 15. TU Dublin Quality Assurance Principles Second Draft 10 Dec 2018
- 16. TU Dublin QA-QE EQAF 2019 Submission





6. Introduction

A key performance outcome expected from Universities today is that they prepare students to be effective work-ready graduates (Higher Education System Performance Framework 2016 – 2020, and committed citizens. To deliver on this outcome, inter alia, many colleges have adopted models of 'Graduate Attributes' which seek to ensure that students develop a range of skills and competencies in addition to the discipline-specific knowledge and skills they will acquire as they progress through their third level education.

In this context, and having regard to improving its ability to prepare students for today's workforce, management at TU Dublin's Blanchardstown campus has identified a learning enhancement known as the Student Transformative Learning Record (STLR¹ pronounced 'stellar') which has been operationalised effectively at the University of Central Oklahoma (UCO). In essence, the STLR initiative is a student-centred, reflection-based learning approach which leverages Transformative Learning (Mezirow, J. and Taylor, E.W., 2009) and which allows students to develop a range of transversal skills through participation in a range of on and off campus activities. Students who participate have the opportunity to acquire an authenticated² record of Transformative Learning achievements which is additional to the standard academic transcript they receive on graduation. Given its emphasis on reflection, the STLR learning enhancement prepares students for a world where life-long learning will feature strongly; the starting point in deciding to learn something new (or why new skills must be acquired) is *thinking* about the opportunities that must, should (or could) be availed of. The essence of thinking is being able to reflect, a skill that is intrinsic to Transformative Learning.

Furthermore, this emphasis on Transformative Learning has the potential to provide concrete support for TU Dublin's brand as a provider of 'transformative' educational experiences. Taking a broader perspective, STLR resonates with TU Dublin's mission particularly in supporting, as it does, the pursuit of excellence in student-centred learning and co-creation by providing a cogent voice particularly for both students and employers. Moreover, the operationalisation by TU Dublin of Transformative Learning using the STLR concept - particularly with its emphasis on co-curricular learning - creates the potential for traction in the achievement of UN Sustainable Development Goal (SDG) 4: Quality Education. While the provision of quality education is a worthwhile goal in itself, it is worth noting that its availability can provide a gateway for the achievement of other SDGs for example sustainability and climate change, human rights, gender equality along with acceptance of the notion of global citizenship and an appreciation of cultural diversity, it is argued therefore that the effective operationalisation of STLR has the potential to significantly advance TU Dublin's strategic agenda.

It should be noted that while the STLR initiative is not a formal validated programme of study, its ethos and discipline-neutral characteristic seeks to create an active interplay between any approved courses of study undertaken by undergraduate students together with co-curricular learning so as to promote strongly self-reflection amongst students leading to an individual validated Transformative Learning (TL) record. The evidence from UCO indicates that students who engage

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¹ STLR is a trademark of the University of Central Oklahoma

² Endorsed by the Registrar's Office





with STLR have better persistence levels and that GPA levels are improved. (King, K., Farrell C. M., Walvoord, M. E., & Wimmer, B., 2018)

Having regard to the preceding points, STLR is best regarded as a journey rather than as a destination and the purpose of this document therefore is twofold:

- 1) To provide a context that provides a strong rationale for trialling the STLR initiative, and to provide details of TU Dublin's approach to operationalising it (initially on a pilot basis), at its Blanchardstown Campus.
- 2) To describe an overarching STLR operating framework (including people, processes and technology) which supports TU Dublin's overall Quality Assurance Framework to the extent that the evidence of achievement presented in individual TL records can be endorsed confidently by the university's Registrar thereby generating credibility among stakeholders³ in the validity of the approach.

The following sections of this document will:

- Provide a context for the STLR initiative together with details of its operation at Blanchardstown.
- Identify the overarching Quality Principles that will be used to inform design of STLR processes.
- Describe the STLR Leadership and Governance Operating Model.
- Identify how performance is monitored via Key Performance Indicator (KPI) framework
- Describe the Operating Model and Operating Procedures.

7. Context

7.1 The importance of developing students' Transversal Skills

According to Hart Associates (2013) a prospective employee's demonstrable abilities in transversal or soft skills in areas such as critical thinking, clear communication as well as the ability to solve complex problems is more important than his or her undergraduate field of study. Moreover, research conducted by Murphy (2006) revealed that the top four reasons which prevented new graduate hires from progressing in their first year of employment related to soft skills deficiencies for example, being unable to act effectively of feedback received. Significantly, a focus group conducted at TU Dublin in February 2018 comprising representatives of fifteen employers from both the public and private sectors revealed;

- 1) there was a preference for strong soft skills over discipline-specific knowledge when it came to ranking potential employees for interview
- 2) graduates frequently fail to articulate how their learning can be of benefit to potential employers at interview and
- 3) employers expect employees to take charge of their own learning.

³ Students, Employers, Staff, and Community Groups





Furthermore, the World Economic Forum (2016) has stated "to thrive in today's innovation-driven economy, workers need a different mix of skills than in the past. In addition to foundational skills like literacy and numeracy, they need competencies like collaboration, creativity and problem-solving, and character qualities like persistence, curiosity and initiative" (p. 2).

In its Higher Education System Performance Framework 2018-2020, Ireland's Higher Education Authority (HEA) has defined one of its six goals as being:

Providing a strong talent pipeline combining knowledge, skills and employability which responds effectively to the needs of our enterprise, public service and community sectors, both nationally and regionally, and maintains Irish leadership in Europe for skill availability

Citing (Hillard and Pollard, 1998), Clarke (2018) states that a widely accepted definition of employability is;

the capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labour market environment) within which they seek work.

An increased focus by industry and consequently the HEA has led many (if not all) Higher Education Institutes in Ireland to adopt a set of Graduate Attributes designed to develop students' soft skills as they complete their discipline-specific studies, very few provide their students with a validated record of students' soft skills achievements. Rather, it's likely that there is an assumption that students will have developed soft skills and competencies as part of their studies (which may not be the case). Even if there was significant development of soft skills, there is no explicit recognition of that achievement in the standard academic transcript, which simply conveys an overall level of academic achievement via the numeric grade the student has achieved. A notable exception is the University of Central Oklahoma (www.uco.edu). An additional problem is the fact that students may not recognise the skills they gain from their programmes sufficient to allow them to articulate clearly their potential value as employees to prospective employers. This deficiency in students is borne out by the work of Jackson (2013) and Strachan (2016). Significantly, this deficiency may impact on the student's ability to be successful at an interview (a direct impact) but it may also impair (indirectly) the student's self-efficacy which has been identified as a mediating factor in Clarke's (2018) employability framework. The reflective practices which are intrinsic to transformative learning can address this weakness and US employers who participate in the Employer Advisory Board (EAB) of UCO's STLR programme confirm the ability of students who have engaged with STLR to promote themselves more effectively at interview than students who have not engaged with the programme.

It is within this context that three academic staff from TU Dublin visited University of Central Oklahoma (UCO) to examine the Transformative Learning approach adopted at UCO.





7.2 A Note on Transformative Learning

Transformative learning is based on the work of Jack Mezirow, an adult education researcher, and having this definition is vital to maintaining a campus-wide standard by which students' Transformative Learning growth is measured. The Transformative Learning process can be considered as cyclical, including experiences, critical reflection, rational discourse, and expanded perspectives

With reference to figure 1 below, transformative learning (Mezirow,1991) is a process whereby students reflect on their own experiences and expand their perspective beyond their disciplinary skills to develop their relationships with self, others, community and environment. This may be through facing disorienting dilemmas, critical assessment and examination of assumptions, exploring options and plans or acquiring of new knowledge and implementing plans.



Figure 1: Transformative Learning

7.3 Operationalising Transformative Learning: The STLR Programme

The University of Central Oklahoma (UCO) has developed a model to provide transformative learning experiences to their students and which allows them to track the development of transferable or employability skills. This model tracks, assesses and provides information to help students develop and use skills critical to their workplace, citizenship and personal success. This model is the "Student Transformative Learning Record" (STLR, pronounced 'stellar').,

A distinguishing feature of the STLR model is the provision to students of a separate record which complements their academic transcript and which displays their soft skills achievements presented under the five competency headings. In terms of evaluating students' achievements across the five





competencies The STLR⁴ rubric (or grading scheme), has been inspired by the American Association of Colleges and Universities V.A.L.U.E. (Valid Assessment of Learning in Undergraduate Education) rubrics and developed by a group of about 20 UCO faculty and assessment professionals, gives a framework for faculty and staff to measure student transformative growth.

Students have opportunities to engage in STLR as follows:

- 1. STLR Class Assignments (e.g. Reflection associated with a module-specific continuous assessment (CA))
- 2. STLR Events e.g. attendance at peer mentoring and other events
- 3. STLR Student Proposal (e.g. learning gained from part-time working and/or other extracurricular activity e.g. volunteering, community work etc.)
- 4. Campus-based STLR events organised by, for example, the Careers Office, the Sports Office.

After students complete the activity and submit a learning artefact, trained faculty and staff supervisors assess students' TL growth using the STLRTM rubric and leave feedback for students' continued growth. Was the student **exposed** to a new perspective related to the competency? Did the student begin to **integrate** that worldview to think about other situations? Is the student embodying the competency value in his/her life evidenced by changed behaviour and a complete **transformation?**

A student who has experienced transformation can demonstrate the *impact* of having had a major change in values, identity, or perspective, often revealed by shifts in behavioural patterns or gains in employable skills. Employers need applicants that have a degree <u>and</u> beyond-disciplinary skills. STLR seeks to provide opportunities for students to gain those skills and to provide them with an authenticated record (additional to the traditional academic transcript) demonstrating the extent of their achievement of those soft skills.

7.4 Pilot Deployment of STLR at TU Dublin's Blanchardstown Campus

TU Dublin's School of Business at Blanchardstown introduced the concept of an authenticated Student Transformation Learning Record (STLR) on a pilot basis (for 155 Business students) from January to May 2019. The initial findings from the pilot were positive and consequently it was decided to extend it to include all School of Business Students on TU Dublin's Blanchardstown campus (800 approximately) commencing in September 2019. It was recognised however, that to allow for a more thorough evaluation, a scalable dynamic pilot should be conducted over a four-year period. This second pilot commenced in September 2019 comprehending all School of Business students at Blanchardstown. It is planned that the pilot be extended to students of other disciplines at Blanchardstown and to students pursuing different disciplines on other campuses over the four-year period. As with the smaller pilot, this larger pilot will be based on the STLR approach developed by the University of Central Oklahoma (UCO).

As part of its plan to deploy STLR, TU Dublin management at its Blanchardstown Campus has invested in the development of a Transformative Learning 'Plug-in' for its Learning Management System

⁴ STLR is a trademark of the University of Central Oklahoma (UCO)

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⁵ A Plug-in is a term used to describe a piece of software that delivers specific functionality enhancements to Moodle





(Moodle) designed to automate to the greatest extent possible the processes that have been developed to operationalise STLR so that its outcomes are achieved efficiently and effectively having regard particularly to both consistency and quality. Appendix 2 provides additional information on the functionality to be delivered by the Plug-in. Table 1 below sets out the roles that are defined for TU Dublin Staff within the Moodle Plug-in.

TU Dublin	Roles within the STLR Moodle Plug-in to be assigned to TU Dublin Staff	
Staff		
TU Dublin IT	Site Admin, Transformative Learning Admin, Transformative Learning Event	
Department	Manager, Reflection Request Viewer, Reflection Approver, Reflection Grader,	
	Reflection Acceptor ⁶ , Student	
STLR Team	Transformative Learning Admin, Transformative Learning Event Manager,	
leads	Reflection Request Viewer, Reflection approver, Reflection Grader, Reflection	
	Acceptor, Student	
Academic Staff	Reflection Grader, Reflection Acceptor	
Professional	Transformative Event Manager, Reflection Request Viewer, Reflection Grader	
Staff	(must be approved by Reflection Acceptor before grades are released to	
	students), Reflection Acceptor	
Student	Reflection Requestor, Event Requestor, Event Manager, Student	
Data	Data Protection Officer. Review DP Requests. Approve DP Requests	
protection		
officer		

Table 1: Moodle Plug-in Role Definitions for TU Dublin Staff

As with the UCO model, STLR allows students to receive a formal record (or transcript additional to their academic transcript) to allow them track and display invaluable transferable soft skills they may have developed through:

- Working in teams in sports or through academic group projects
- Developing leadership skills through leading teams or volunteering
- Contributing as 'productive citizens' through volunteering in their local communities or charity organisations
- Problem solving through team-based projects
- Managing conflict through interactions within teams
- Enhancing innovation and creativity through projects, assignments, part-time work and/or volunteering.

To receive recognition for the development of such skills, students are requested to reflect on their experiences with feedback from STLR-trained staff. Recognition is gained when students participate in Transformative Learning (STLR) tagged assessments (using customised Rubrics) provided by lecturers, attendance at on and off-campus events, or through reflection on part-time work or volunteering experiences. Students can improve and track their skills development under five overarching competencies:

⁶ This is the person who has the authority to release Reflection Grades to students once they have been assessed by the Reflection Grader. Note: some personnel have Grader authority only while others have Grader and Acceptor authority

⁷ There are three categories of recognition: Transformation, Integration and Exposure





- Civic knowledge skills and experiences
- Global Culture Competence
- Health and Wellbeing Development
- Leadership and Teamwork
- Research and Innovation Competency Building

The competencies are elaborated on in Appendix 1. It should be noted that students can also make their individual Transformative Learning Records available to employers using an e-Portfolio.

7.5 STLR and GDPR Compliance

The Moodle Plug-in has been designed to be GDPR compliant. The Data Compliance Officer on the Blanchardstown campus tested the plugin during the UAT phase. When students access Moodle for the first time they will be presented with Academic Integrity policy and in addition to this policy, they will be presented with the following policy regarding STLR. The following policy was approved by TU Dublin's Data Compliance Group.

"The Student Transformative Learning Record (STLR) initiative provides students with opportunities to gain acknowledgement and a separate record of their Transformative Learning achievements gained through participation in both on-campus and off-campus events.

The University is committed to ensuring that your personal data is secure with us. For further information on the University's Data Protection Policies and Procedures, please see our website https://www.tudublin.ie/explore/gdpr/ and our Data Protection Notice for Students

(Tick Box to continue) I have read and understand the information provided above regarding STLR and Data Privacy"

8. Guiding Quality Principles for the STLR Initiative

According to Quality and Qualifications Ireland (QQI)

Quality Assurance (QA) is a term generally used to describe the processes that seek to ensure that the learning environment (including teaching and research) reaches an acceptable threshold of quality. QA is also used to describe the enhancement of education and training provision and the standards attained by learners.

In respect of the STLR initiative, this document seeks to create a quality framework to support TU Dublin's overall QA process. It is intended that the availability of this framework will lead to confidence in STLR and its associated processes, to the extent that the recognition awarded to students (by way of a Student Transformative Learning Transcript), and which is granted as a result of their participation in STLR, is endorsed by the Registrar' Office.





The STLR approach to quality is informed by a number of the following QQI principles as appropriate⁸:

- The QA Context Principle. Quality systems are context dependent i.e. the scale and scope of a provider's provision will impact on how it operates quality assurance. Providers should be able to demonstrate their quality publicly.
- The QA Culture Principle. A quality culture is the outcome of individual staff and collective organisational commitment to continuous improvement. In such a culture, QA procedures are not viewed as a bureaucratic burden, but as tools to drive improvement and enhancement. A quality culture is underpinned by a coherent, integrated and embedded quality system, which is: Closely linked to institutional strategies Grounded in effective internal decision-making processes and structures Context-sensitive and takes into account different organisational and disciplinary cultures Not punitive, but developmental. It reflects provider: autonomy and self-confidence and commitment to staff and learners
- The Learning Outcome Principle. Education and training exist principally for the purpose
 of enabling people to learn and, accordingly, programmes of education and training should
 be designed, implemented and evaluated with learning outcomes in mind. Learning is
 understood here in the broadest sense and in the context of the National Framework of
 Qualifications.
- Implementation Principle. Approved quality assurance procedures and those procedures which must have regard to QQI guidelines are fully implemented by providers and are monitored by providers for effectiveness.
- The Externality Principle. A provider-owned quality assurance system makes appropriate use of external persons who are independent of the provider and who are expertly qualified to make relevant national and international comparisons. Providers must exercise great care when selecting external persons or partners in provision to ensure that they gain the full benefit of objective, expert advice. External examining and external authentication are examples of the application of this principle. Another is the use of independent external panels in a programme validation and programme re-validation (taught and research) training and other processes.
- The Continuous Improvement Principle. Continuous improvement must be the goal of a quality assurance process. The quality of academic education and training and other programmes needs to be developed and improved for students and other beneficiaries of higher and further education and training.
- The Transparency Principle. Quality assurance systems should enhance transparency. Processes should be developed through which education and training providers can demonstrate their accountability, including accountability for the investment of public and private money.
- The Public Confidence Principle. The quality assurance system supports public confidence (only when this is deserved) in the provider and its capacity to provide programmes to agreed standards. Assuring the quality of provision and related services requires significant effort and resources on the part of the provider. Providers should actively promote their internal quality system and proactively develop it as a tangible resource and explicit part of the education and

⁸ April 2016/QP.10-V3 7 Policy On Quality Assurance Guidelines





training infrastructure. Public confidence is a key objective for provider owned QA. All outputs of the internal quality assurance system should be published.

Throughout this document, evidence will be presented to demonstrate the adherence of the STLR initiative to principles as appropriate to the STLR initiative.

9. STLR Leadership and Governance

Strategic oversight and governance for the STLR initiative is provided by STLR Steering Group which comprises the following post holders:

- Head of School of Business (TU Dublin Blanchardstown Campus)
- Programme Manager (TU Dublin Blanchardstown Campus)
- Quality Officer⁹ TU Dublin
- Head of Student and Academic Affairs
- School of Business (Blanchardstown Campus) Administrator
- STLR Co-Leads
- Employment Officer TU Dublin Blanchardstown Campus
- Financial Administrator
- Technical Officer from Computer Services
- Lecturer in Statistical Analysis.
- Learning Technologist

The Steering Group meets monthly and is responsible for approving plans and reviewing progress against those plans. Documentation including plans, minutes, performance reviews are stored centrally. In terms of reviewing performance, a QUAD report format is used. With reference figure 1 below, the QUAD report has four discrete areas which are updated each month in advance of meetings: Schedule, Financials, Risks and Commentary.

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⁹ Is also Transform EDU Project Coordinator





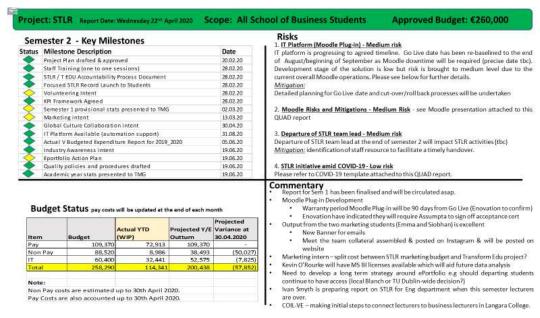


Figure 2: STLR QUAD Report

10. Management Systems Planning

10.1 Introduction

Management systems planning is the responsibility of the Programme Manager, School of Business at TU Dublin's Blanchardstown campus. Day-to-day responsibility for the execution of agreed plans and initiatives as approved by the STLR Steering Group rests with STLR Team Leads. A plan-do-review approach has been adopted by the team leads who have specific responsibility for:

- Maximising student engagement in the Pilot
- Liaising with academic and professional staff to ensure a 'pipeline' of STLR opportunities for students
- Providing guidance and support for academic staff
- Organising training for students and staff
- Supporting the STLR Steering Group (organisation of meetings, production of end of semester reports, preparation of plans, follow-up on agreed actions)
- Populating the STLR KPI framework (qualitative and quantitative data)
- Managing quality (including improvements)
- Liaising with external entities (UCO, other HEIs interested in STLR, other TU Dublin projects e.g. Student Dashboard, Convene, Employer Advisory Board).

These responsibilities can be divided in to two broad sets of activities:

- 1. 'Front' Office providing a 'public face' and people-related activities including leading
- 2. 'Back' Office planning, organising, scheduling,





10.2'Front Office' Activities

These can be summarised as follows

- Working with staff in the creation of STLR opportunities (CAs and Events)
- Guiding and mentoring staff
- Promoting STLR to students directly and indirectly (e.g. via Peer Mentoring Programme)
- Marketing Activities (creation of Newsletter, Website development, Promotions)
- Conducting student and staff surveys
- Liaison with other project groups within TU Dublin
- Attendance at meetings
- Presentations

10.3'Back Office' Activities

These activities include:

- Development of plans and schedules
- Production of reports
- Dissemination of information
- Management of Quality
- Vendor Management (Moodle Plug-in, production of marketing materials, etc.)

11.Support

The STLR programme is supported by a number of academic and professional colleagues from within TU Dublin and outside it. Table 2 sets out the position.

Туре	Support Source	Support Type	Personnel
Direct ¹⁰	Blanchardstown	Administrative	Ms Kathleen O'Leary, School
			Secretary
		IT	Ms Sandra McCullagh
		Finance	Ms Una O' Hehir
		Research Design &	Dr Colm McGuinness
		Statistical Analysis	
		Data Analytics	Dr Geraldine Gray
		Quality	Dr Philip Owende
		Learning	Dr Cormac McMahon
		Technology	
		Emotional	Dr Aidan Carty
		Intelligence	
Ad Hoc ¹¹	City Campus	e-Portfolios and	Dr Kevin O Rourke
		Moodle	

¹⁰ Means support is formalised or the individual providing the support has a direct stake in achieving STLR outcomes

¹¹ Support is provided on a collegiate basis





Type	Support Source	Support Type	Personnel
		e-Portfolios	Dr Jen Harvey
	Tallaght Campus	STLR	Ms Miriam O'Donoghue
		Implementation	
	UCO	STLR initiative	Dr Jeff King, Mr Mark Walvoord
	DCU	ePortfolios	Dr Mark Glynn, Ms Lisa Donaldson

Table 2: Support provided to the STLR Team Leads

12.STLR Operating Model and Process

12.1 Operating Model & Processes Introduction

The reader will recall that the primary purpose of the STLR initiative is to enhance learning by providing reflection-based transformative learning experiences for students to support the development of their employability/transversal skills. To support achievement of this purpose, a three-tiered process architecture is employed as shown in Figure 3.

Tier 1 Process Steps: These six (6) steps take the student from the point where they are uninvolved with STLR to the point where they have enhanced self-efficacy and awareness of their value to prospective employers backed up by concrete evidence (see Appendix 3 for an example).

Tier 2 Process Steps: These steps support the achievement of process steps at Tier 1 as well as addressing Quality Assurance matters.

Tier 3 Process Steps: These comprise user guides and work instructions to guide the actions of different stakeholders particularly students, academics, professional and STLR staff.

¹² It should be noted that participation in STLR for both students and staff is voluntary





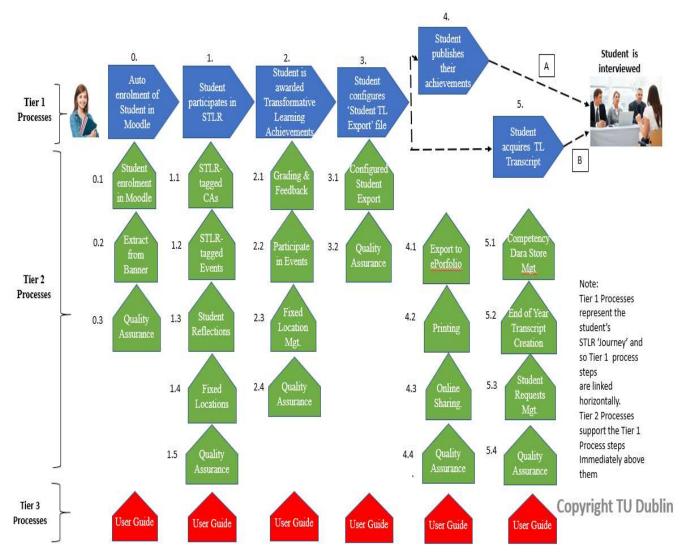


Figure 3: STLR Three Tier Process Architecture

There are a number of benefits associated with this three tiered process approach:

- Given that the STLR initiative can be regarded as a learning enhancement students can avail of, the process approach supports delivery of a consistent level of quality and hence 'STLR experience' for the student
- From a quality perspective, if errors or deviations occur, then the 'problem' can be attributed to either a process step that is flawed or a stakeholder (student, academic professional or STLR staff member) in the system who has failed to 'participate' correctly. Whichever the case, through adherence to the Continuous Improvement Principle, the problem can be identified and remedied. A recent example illustrates the point: a lecturer completed STLR grading of a STLR-tagged Assessment and 60% of the achievements were awarded at the 'Transformation' level. From a QA perspective, the STLR team leads monitor the distribution of achievements and deemed this figure to be high relative to the external benchmark from UCO¹³ (no more than 12% of achievements are at the Transformation level). Following a peer review of the

¹³ From UCO data, the distribution of Transformative Learning awards is: Transformation (12%), Integration (28%) and Exposure (60%)





achievements awarded, the lecturer concerned was contacted, provided with additional guidance and feedback, following which there was agreement that the students' work would be re-assessed taking on board the feedback and guidance provided.

• It is an input to STLR training documentation.

12.2 STLR Tier 1 Process Steps

With reference to figure 3 above, the **Tier 1** process steps are now described.

12.2.1 STLR Tier 1 Process Step 0

Step 0 – Auto Enrolment of Students in Banner

- A file is taken from a Banner (Academic Administration System) which contains students' contextual details, for example, student ID, Name, Programme, full-time or part-time, modules enrolled in and is transferred to Moodle.
- The Moodle STLR Plug-in contains an updated table of all courses that have valid Moodle courses (it should be noted that not all modules in Banner may have associated Moodle Courses).
- The Moodle Plug-in has embedded processing logic which uses a 'short code key' comprising Moodle Code (e.g. BSST H1011) and Mode (indicating whether student is full-time or part-time) to identify and enrol individual students on their chosen courses on Moodle (where such a course exists). Thus, there is no need for students to get an enrolment key from individual lecturers before they can access a module on Moodle.
- Process Step 0 will be executed early in semester one each year and will be executed repeatedly for a number of weeks to ensure that students who enrol late are auto enrolled in Moodle
- Only School of Business students will be in scope for auto enrolment from September 2020.
 Other schools may be included subject to their agreement and willingness to support the process
- Individual lecturers can still control access to their content and the start date of their course on Moodle.

12.2.2 STLR Tier 1 Process Step 1

Step 1 - Students participate in STLR. They do this principally by:

- Completing STLR-tagged CAs i.e. making submission(s) to CA(A) which have been linked to
 one or more of the five STLR competencies by an academic staff member
- Attending on or off campus events (which have been approved by the STLR team) and which have been STLR-tagged to one or more of the STLR competencies by an Event Organiser.





Normally, attendance at an approved events attracts 'Exposure' recognition. Optionally, students may choose to submit a reflection (which can be text, audio or video) to achieve recognition at 'Integration' or 'Transformation' level.

Submitting a reflection based on an experience gained through part-time work, volunteering, or an event they have participated in.

Students can receive transformative learning achievements if they meet certain criteria having attended either the Library or the Gym.

12.2.3 STLR Tier 1 Process Step 2

Step 2 - Students are awarded Transformative Learning Achievements.

Following on from Step 1, student participation in a CA, Event or individual Student Reflection will be evaluated against a pre-defined Rubric. Generically, there are three levels of achievements are as follows:

Transformations: The student provides strong evidence of learning experience that resulted in profound growth or a major shift in values, beliefs or perspectives in the core competency and this may be evident through changes in behaviour, speech, or ability.

Integration: The student can cleary articulate an understanding of the learning activity as it relates to the core competency and its value for her/his life. The student is questioning, planning, or beginning to expand upon previoulsy held understandings of self, community, behaviour, or environment.

Exposure: The student displays a willingness to learn and grow by participating in the activity. She/he has an awareness of her/his current perspectives related to the core competency and may be developing an understanding of what the competency entails.

Appendix 4 shows the generic STLR Rubric while Appendix 5 shows a Rubric that has been customised (for the Global Cultural Competence only) for use with a specific CA used by a TU Dublin lecturer¹⁴ in their year 3 Diversity in the Workplace module.

12.2.4 STLR Tier 1 Process Step 3

Step 3 – Student Configures a Student Transformative Learning Export

Each student has access to a Transformative Learning Dashboard on Moodle giving him or her access, inter alia, to a configurable Transformative Learning Student Export. This feature allows them to choose how they wish to prioritise the presentation order of their recorded achievements depending on the type of job they may be applying for. As an example, a student applying for a managerial position may wish to prioritise presentation of their achievements under the Leadership and Teamwork competency whereas a student applying for a position as a researcher might wish to prioritise presentation of their achievements under Research and Innovation Competency Building. Students may also wish to emphasise more recent achievements that may might be more relevant

¹⁴Reproduced in Appendix 5 by permission of Ms Fionnuala Darby, Senior Lecturer TU Dublin, Blanchardstown





to a job opportunity particularly in years 3 and 4. A student can create an export anytime during their time in TU Dublin.

12.2.5 STLR Tier 1 Process Step 4

Step 4 – Student Publishes Transformative Learning Achievements

With reference to 'Channel A' in figure 3, students have three (3) flexible methods to communicate their Transformative Learning achievements (having configured them in step 3) to prospective employers:

- 1. The 'Student Transformative Learning Export' can be exported with the push of a button in Moodle to the Achieve@TUDublin e-Portfolio system. In so doing, it allows students to present their Transformative Learning achievements as part of their broader course work achievements where they may also have been assessed using an e-Portfolio approach. A further benefit for students is the ability to link their e-Portfolios with their LinkedIn profiles¹⁵.
- 2. Students can print a pdf version of their configured 'Student Export File'. This will have a header stating 'Student Transformative Learning Export'
- 3. Students can share their 'Student Transformative Learning Export' online with specific third parties. A link is mailed to the third party who can scan the QR code at the bottom of the export to authenticate the Student Transformative Learning Export. Timeframes can be inserted on the period, which will allow the third party to use the QR code authentication.

12.2.6 STLR Tier 1 Process Step 5

Step 5 – Student Acquires a Student Transformative Learning Transcript

At the end of each term this step ensures students are emailed a Transformative Learning Transcript which is endorsed by the Registrar. The Student Transformative Learning Transcript is superior to a student-generated 'Student Transformative Learning Export' in that it carries the Registrar's signature. The authenticated Transcript can then be used with prospective employers (Channel B in Figure 3). The count of achievements which were awarded to the student from the time they started in TU Dublin up to the time of creation of the transcript will be displayed on the transcript. Transcripts will be generated after quality assurance process and procedures are completed at the end of each academic year, please refer to 3.2 quality assurance.

12.3 STLR Tier 2 Process Steps

12.3.2 Tier 2 Process Step 0.1: Student Enrolment in Moodle

Preamble: This step takes information from Banner and uses the embedded course information to enrol students on Moodle courses (where a Moodle course exists for particular modules¹⁶). To facilitate this step, a once-off mapping exercise of Moodle course data was conducted with each Moodle course being categorised in line with the template set out below. Ultimately, this mapping is used to inform the Plug-in Processing Logic as to which Banner courses have corresponding

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¹⁵ Within the School of Business, TU Dublin Blanchardstown, there has been increased focus on helping students develop effective LinkedIn profiles given its widespread use by HR Professionals seeking new employees

¹⁶ Not all Banner Courses have corresponding Courses (Modules) on Moodle. The need to pivot to an online delivery model as a result of Covid-19 may have diminished the number of courses which are not on Moodle





Moodle Modules and the URLs that should be used to access these courses. A link to the mapped modules file is included in Appendix 10.

Indicators

NRB Not relevant to Banner e.g. course coordination

NM No Moodle Course Exists

Single Module ID from Banner Mapped to One Moodle Course - URL

SMP Exists

PTFTMP Part Time & Full Time Courses Shared

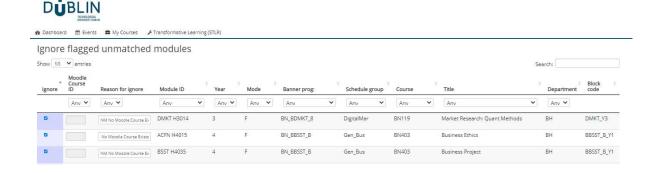
MMP Multiple Module IDs Mapped to the same URL SBSMP Same banner short name mapped to multiple URLs

IMC Inactive Moodle Course

NSTLR Banner course mapped but not STLR

AA Access for All Students
NBM No Banner Module

The mapping process in Moodle is supported by four (4) database tables which are accessible to Administrators (STLR and/or IT) via a User Interface (UI) in Moodle. The following image provides a screenshot of functionality that allows an Administrator to view modules which have been flagged as 'Ignore' to Moodle (because for example no Moodle course exists or it is not used for teaching purposes). If the 'Ignore' checkbox is unticked, then a Moodle Course ID can be entered thus allowing the Banner Module to be 'matched' with a corresponding Moodle Course.

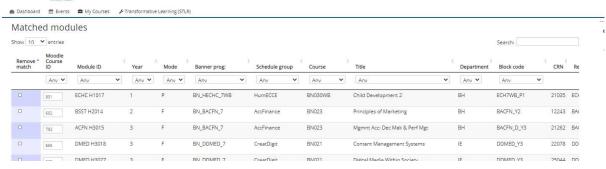


The following screenshot shows the User Interface giving access to 'Matched Modules' i.e. the Banner Course has been mapped to a corresponding Moodle Course. The 'Moodle Course ID' field points to the URL for the course on Moodle. It can also be seen that there is a 'Remove Match' field which, if enabled, will prevent students from being auto enrolled on any particular module.

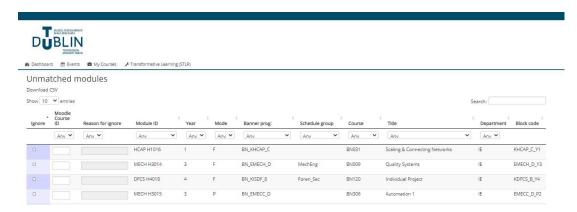




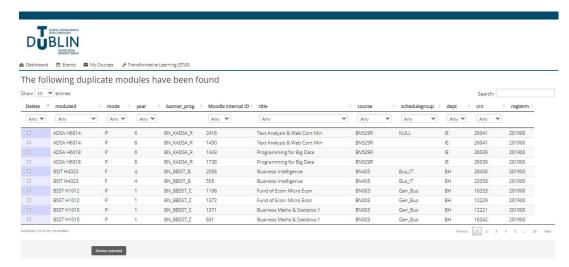




The screenshot overleaf shows Modules that the Moodle Plug-in logic cannot 'match' to a valid Moodle Course. Unmatched Modules, (using course data from Banner) are stored in an 'Unmatched Modules' Table. This allows Administrators to investigate and remedy the problem (if one exists).



Finally, the screenshot below shows where the Moodle Processing Logic has detected duplicate modules. Again, the availability of this information allows Administrators to deal with issues arising from the existence of 'duplicate modules'







From a Quality perspective, the ability to main a consistent approach to maintaining this mapping data and the naming of newly created Courses (Modules) in Moodle will be important. Accordingly, a proposal was made to the STLR Steering Group in April 2020 to have enhancements made to the Course Creation¹⁷ functionality on Moodle. At the time of writing the proposal is with the IT Department and Learning Management Governance Group.

Steps:

1) A CRON job (which is a scheduled processing task on Moodle and in this case is called 'Process Course Metadata from TU DUBLIN Banner') imports the Bannercourse.csv file from the SFTP server. The file is validated before its contents are used to update the Course Catalogue Metadata Store (which is a component of the Plug-in) with course details. The frequency of execution of this job as requested by the STLR team leads. Each course record transferred from Banner to Moodle contains the following header data as follows:

REGTERM,BANNER_PROG,BLOCK_CODE,Mode,MODULEID,CRN,DEPT,YEAR,TITLE,COURSE,SCH EDULEGROUP

A second CRON job (Process Student data from TU DUBLIN Banner and enrol students on Modules) imports the Bannercourse.csv file from the SFTP server. The file is validated before its contents are used to enrol students in Moodle for modules they are registered for in Banner (noting that not all modules listed in Banner have corresponding modules on Moodle) Each **student** record transferred from Banner to Moodle contains the following headers:

REGTERM,STUDENTID,FNAME,LNAME,EMAIL,MODULEID,Mode,YEAR,BANNER_PROG,CRN,COURSE,SCHOOL,CAMPUS BLOCK_CODE

- 1) The following error conditions trigger warning emails for the attention of the IT Administrator:
 - a. There is an error extracting the file from the SFTP server
- 2) A Cron job imports Studentdata.csv file from the SFTP server and validates the file.
 - a. The student's Banner Profile details are available in the student profile information in Moodle.
 - b. Students are enrolled on Moodle courses based on validation against the Bannercourses.csv file.
 - i. Students will not be enrolled on a module which appears in the unmatched Module list. If a student is not enrolled on a course, the course can be checked to see if it exists in the unmatched Module list in case it has a problem. Also, verification is possible by running an enrolment report can be run to check each enrolment on the module.
- 3) Students who are auto enrolled will get access to a Student Transformative Learning Dashboard as shown in the image below. Clicking on the Transformative Learning link will give students access to STLR functions.



¹⁷ Used by staff when they request a new module to be set up on Moodle





It should be noted that students who are not yet in scope for STLR and who may have been auto enrolled on Moodle (following approval by the STLR Steering Group) will receive access to the Transformative Learning (STLR) Dashboard. However, on accessing the STLR Dashboard, such students will receive a message to the effect that STLR is not yet available to them. This 'differential messaging' is achieved by having a check that validates if a student is enrolled on a Programme to which STLR has been deployed. This feature exists in Transformation Dashboard settings. Banner programmes in scope of STLR are detailed in the student dashboard access banner programmes text box, each banner programme is stated followed by a comma. This STLR Programme List is maintained by STLR Administration and is updated as STLR is extended to new Programmes

Dashboard My Courses Transformative Learning (STLR)

Transformation Dashboard settings

Student dashboard access BN_BACFN_7,BN_BACFN_8,BN_BAC Default: Empty banner programmes

List of comma separated banner programmes of users who should have access to ner_programmes STLR student dashboard.

12.3.2 Tier 2 Process Step 0.2: Extract from Banner

Preamble: Currently, students are required to manually enrol on Moodle Courses in circumstances where lecturers use Moodle to deliver content, communicate assessments etc. Self-enrolment on Moodle by students is facilitated by lecturers providing them with a Moodle 'key' usually during the first lecture. The process outlined below here eliminates the requirement for self-enrolment using a key, as information relating to each student (their programme, modules etc.) is extracted from Banner and used to auto enrol them on Moodle. Step 1 outlined below is used to extract the information from Banner. The second step (auto enrolment in Moodle) is described in Section 7.3.2 below. At the time of writing only School of Business students will be availing of this feature. Both steps are jointly owned and managed by the IT function and Learning Technologist at Blanchardstown and a representative within the School.

Steps:

- 1) A scheduled SQL Server task extracts data from Banner view to produce a list of students and their respective registered modules for the current registered term.
- A scheduled SQL Server task extracts data from Banner view for list of Modules with registered 2) students for the current registered term.
- The two extracts are used to create two (2) files: Bannercourses.csv and Studentdata.csv 3)
 - a. Bannercourses.csv headings within in this are: REGTERM,BANNER_PROG,BLOCK_CODE,Mode,MODULEID,CRN,DEPT,YEAR,TITLE,COURSE ,SCHEDULEGROUP
 - b. Studentdata.csv headings within this file REGTERM, STUDENTID, FNAME, LNAME, EMAIL, MODULEID, Mode, YEAR, BANNER PROG, TIT LE,CRN,COURSE,SCHOOL,CAMPUS BLOCK CODE
- A scheduled SQL Server task exports Bannercourses.csv to an SFTP (secure file transfer) server. This task can be modified to tailor the export csv file transferred to Moodle to allow:

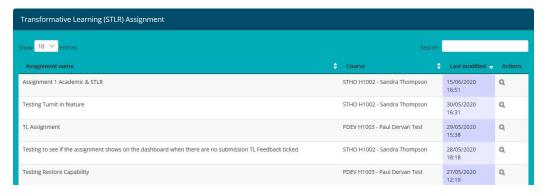




- a. Exclusion of non-Business (e.g. Engineering and/or Humanities courses from the extract). This facilitates a phased roll-out of STLR/auto enrolment to different Schools. At the time of writing this feature is available to School of Business students, where requests are made from other departments to avail of this process the relevant department must take ownership of the process for their students.
- b. Exclusion of Modules (which are valid in Banner) but which do not have a corresponding Moodle course thus allowing a reduction in post processing Administration of the Unmatched Module file in Moodle. This Unmatched Module list is generated in circumstances where the Plug-in auto enrolment processing task identifies a module that is not recognised as a valid module in Moodle or where a duplicate module exists. Manual intervention via a User Interface is possible by the IT Administrator to remedy entries that appear in the 'Unmatched Moodle Module' file.
- 5) A Scheduled SQL Server task exports Studentdata.csv to the SFTP server. This task can be modified to tailor the export csv by:
 - a. Excluding Engineering (IE) students (and/or other Schools) from the extract thus facilitating a phased roll-out of STLR/auto enrolment .

12.3.3 Tier 2 Process Step 1.1: STLR-tagged CAs

Preamble: This step is concerned with setting up a CA on Moodle. The student can access the STLR tagged CA on the Lecturer's Moodle course page once it has been set up. The student is also able to view and action all STLR-tagged CAs from multiple Lecturers using their Transformative Learning Dashboard as shown in the image below.



Steps:

- 1. The Lecturer decides which STLR competencies (Appendix 1) will be tagged to the CA.
- 2. Optional Step: Lecturer may consult with STLR Leads in formulating the Transformative Learning reflective question(s) and generating a Rubric which will be used as part of the CA. Note: the Transformative Learning Rubric is not disclosed to students to avoid 'leading' them.
- 3. The Lecturer sets up the CA on Moodle as normal (note: URKUND can be used for ensuring academic integrity).
- 4. The Lecturer configures the CA for Transformative Learning Feedback (STLR Rubric) also.
- 5. The Lecturer ensures students understand the requirements of the CA including the Transformative Learning component.

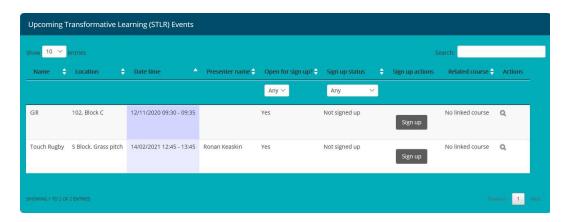




12.3.4 Tier 2 Process Step 1.2: STLR-tagged Events

Preamble: This step is concerned with setting up a Transformative Learning Event on Moodle. The following points are provided to help the reader understand the overall Event Management Process:

- Events can be requested by students (via their Transformative Learning Dashboard) for example, organising a Transformative Learning -tagged Sports Event.
- Only staff with 'Event Manager' privileges (see Table 1 Moodle Plug-in Role definitions) can set up events
- STLR Admin staff are the only staff who can approve Event Requests from students.
- A staff member who has Event Manager privileges can assign ownership to another person (including a student)
- Event invitations can be set up with three (3) configurable invitation 'profiles'
 - Open for sign up anyone can sign up
 - Open for sign up having users invited either individually or via cohorts open to students who match at least one filter sign up.
 - Open for sign up to all **and** having users invited either individually or via cohorts open to everyone in addition to targeting a particular cohort.
 - Open to defined students or student cohorts (and the invitation can be accepted or rejected)
- Events can be tagged to one or more of the STLR competencies
- Events can be differentially tagged for attendees and volunteers who participate in setting up and/or running an Event
- Once approved, the Event will show up in the Transformative Learning Dashboards of any students invited to attend the Event as shown in the following screenshot:

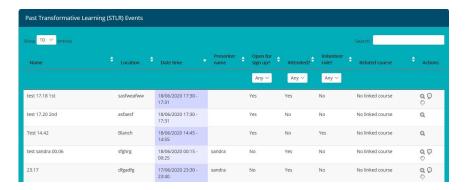


- Event owners can download an attendance sheet with QR code that has the names of those students who accepted an invitation to attend the event. Students can sign this sheet at the event or can take a picture of the QR code to have their attendance recorded automatically.
- Event owners can download a QR code only (no attendance sheet) to allow students to record their attendance.
- Attendance can be modified manually after the event if there is proof that the student attended the Event
- Students who attend Events can see a list of those they attended in their Transformative Learning Dashboard as shown in the following screenshot. They can also ascertain what Transformative Learning acknowledgement they have received for their attendance





 Students can provide a feedback rating and comments to a pre-prepared question set by the Event Owner



Steps to set up an Event (Event Manager):

- 1. Decide which STLR competencies (Appendix 1) will be tagged to the Event
- 2. Develop an outline plan for the Event (Date/time, Location, invitees, guest speaker (if any), catering (if any), student volunteers (if any)
- 3. Nominate an Event Owner (if the Event Manager will not be the Owner). Note: Nominating an Owner will transfer ownership of the Event to that person once the Event has been set up on Moodle
- 4. Set up the Event in Moodle as per User Guide instructions ensuring the Event appears in the 'Upcoming Transformative (STLR) Events' window of the Transformative Learning Dashboard see following screenshot. Notes:
 - In setting up the Event on Moodle, the organiser can (optionally) link the Event with a course. Also, a feedback question on the Event can be customised for use by attendees. Aggregate feedback captured can be used as part of a Continuous Improvement approach to the organisation and management of STLR-tagged Events.
 - The Event Organiser can classify individual invitees as 'attendees' or as 'volunteers' i.e. students who are helping organise the Event
 - Pre-set the STLR achievements i.e. set up in advance the STLR achievements that will be awarded to attendees and also pre-set achievements (which could be different from those of attendees) for volunteers



5. Execute the Event

Note: Only STLR Administration staff can approve Event Requests from Students. The process is initiated by an email which is generated when a student creates an Event Request. Approval of the





Event Request will require a STLR Admin to open the email (or access the Request directly from their Transformative Learning Dashboard) and follow the instructions provided in the User Guide for approving Event Requests. The following screenshot shows how students can easily request Events (and/or Reflections which is discussed in section 7.3.5 below)



12.3.5 Tier 2 Process Step 1.3: STLR-tagged Student Reflections

Preamble: This step is concerned with enabling students to submit STLR -tagged Reflections perhaps linked with part-time working and/or volunteering experiences. The power of reflection as a learning strategy is grounded in John Dewey's observation that we do not learn from experience; we only learn when we reflect on experience. The following points are provided to help the reader understand the overall Reflection Management Process:

- Students can request Reflections from a Quick Link located in their STLR Dashboard or from the details page of an Event they attended. Lecturers can also initiate a Reflection request for a student from within their STLR Dashboard.
- Once a Reflection Request has been completed, an email is sent to staff with Reflection Approver rights.
- The Reflection Request will also appear in the Reflection Request section of staff STLR Dashboards
- Staff can choose to approve or reject the Request. Staff can also put the Request in to status 'Engage with Student' if it is deemed necessary to get further information, agree competencies etc.
- Once the student engagement has been finalised, the staff member can approve the Request
- Once approved, the student can submit the Reflection. It should be noted that students can secure input from a third party which can be included with the Reflection as reference material. They can also nominate the STLR competencies that will be linked with the Reflection
- Once submitted, Staff will receive an email confirming the student has submitted the Reflection.
 It can be accessed from within the email or from the staff member's STLR Dashboard
- The staff member can customise the competency levels to provide a Rubric which can be used to evaluate the Reflection
- The staff member can then assess the Reflection noting which competencies have been nominated by the student. It should be noted that staff who are 'Graders' only (i.e. they can assess the submission but the achievements are not released to students) can assess the Reflection but another staff member who has 'Acceptor' rights must 'accept' the achievements





before they are released to students. Staff members who have both 'Grader' and 'Acceptor' rights can assess and accept in a single step.

- Students can appeal the Reflection achievement awarded. An email will be sent requesting a review.
- Staff Member with Acceptor privileges can review the Appeal and either reject the Appeal or Reassess the submission which can include providing additional feedback to the student

Steps:

- 1. The student requests a Reflection or a Lecturer initiates one on behalf of a student
- 2. A member of the STLR team approves the Reflection Request on Moodle and assigns it to a 'Grader'
- 3. The student receives a notification that the Request has been approved
- 4. The student submits the Reflection having nominated associated STLR competencies for the Reflection (optional)
- 5. The assigned staff member customises the STLR competencies taking note of the competencies nominated by the student
- 6. The assigned staff member assesses the Reflection against the customised competencies. and provides feedback. Note: if the assigned 'Grader' is not also and 'Acceptor', then a staff member who is an 'Acceptor' will need to accept the achievements in order to allow them to be communicated to the student
- 7. The student receives a notification that the Reflection has been assessed
- 8. The student views the STLR achievement
- 9. The student appeals the achievement if they are unhappy with the achievement

12.3.6 Tier 2 Process Step 1.4: STLR-tagged Fixed Locations

There are two STLR tagged fixed locations on the Blanchardstown campus, the Sports Centre and Library.

Sports Centre:

- 1. This STLR tagged fixed location is jointly managed by the STLR team and sport office
- 2. Each week a QR code is generated for the Sports Centre
- 3. The code can be scanned by students to record their attendance at the gym session/gym classes
- 4. To receive exposure STLR recognition a student must attend at least three classes/three gym sessions
- 5. The report 'event attendees' is used to monitor the attendance of students
- 6. As part of a quality check the event attendee report is cross checked with sign in details from the gymnasium.

Library:

- 1. This STLR tagged fixed location is jointly managed by the STLR team and library staff
- 2. Each week a QR code is generated for the library
- 3. The code can be scanned by students when borrowing a book/accessing an e-book to entitle them to STLR recognition under research & innovation competency.
- 4. When a student scans a QR code three times a student will be invited to submit a reflection to receive exposure recognition under the Research & Innovation competency.





- 5. A student can then submit a reflection to provide details of the books they have borrowed.
- 6. The report 'event attendees' is used to monitor how many times a student borrows a book/accesses an e-book.
- 7. As part of quality check the event attendee report and student reflection is cross checked with library records.

12.3.7 Tier 2 Process Step 2.1: Grading and Feedback

STLR-tagged CAs

- 1. The Lecturer accesses the CA submissions via Moodle (from the Course page or via the STLR Dashboard)
- 2. The Lecturer assess the submissions (academic perspective including academic integrity using URKUND checking if it has been enabled at the time the CA was set-up). Note:
 - The Lecturer can uncheck a tick box to prevent individual students being notified that grading has been completed
 - Lecturers can arrange that the academic assess for all student submissions can be released simultaneously (following grading) by using Moodle's Workflow management capability
- 3. The lecturer evaluates students' submissions from a Transformative Learning perspective with reference to the STLR Rubric which has previously been set up for the CA.
- 4. The lecturer saves the assess on Moodle. Note: once saved, a STLR achievement will be visible to the student via their STLR Dashboard irrespective of how the 'Workflow' management state has been set at step 3 above
- 5. Students are notified that their work has been assessed
- 6. Students STLR Competency reports (which is a summary of a student's STLR achievements) in their STLR Dashboards are updated based on STLR achievements as shown in the following screenshot:



Student Reflections

- 1. The student submits the Reflection having nominated associated STLR competencies for the Reflection
- 2. The assigned staff member customises the STLR competencies taking note of the competencies nominated by the student
- 3. The assigned staff member assesses the Reflection against the customised competencies. and provides feedback. Note: if the assigned 'Grader' is not also an 'Acceptor', then a staff member who is an 'Acceptor' will need to accept the achievements in order to allow them to be communicated to the student
- 4. The student receives a notification that the Reflection has been assessed





- 5. The student views the STLR achievement
- 6. The student appeals the achievement if they are unhappy with the achievement

12.3.8 Tier 2 Process Step 2.2: Participation in Events

Preamble: The Event will have been set up and promoted by the Event Organiser who will have (or who will need to) pre-set the achievements for both invitees (some of whom could be acting as volunteers). Before the Event takes place, the Organiser can optionally download a QR code associated which can be displayed at the Event so as to allow students use a mobile device to record their attendance. Alternatively, the Organiser can download a pre-populated list of invitees who have accepted the event. The list will have students' IDs printed with space for a signature, course code and whether they are attending the event as an attendee or volunteer. It will also contain a QR code so that students can either record their attendance by scanning the QR code with a mobile device or by simply signing the form.

Steps:

- 13. The invited students attend the Event.
- 14. Students record their attendance using a mobile device to scan a QR code made available by the Event Organiser.
- 15. Students who attend an event but have not registered for that event can still record their attendance by scanning the QR code.
- 16. The QR code is time restricted, meaning the students can only use the QR code to record their attendance within a certain time period. The QR code remains valid from the commencement time of the event, plus the duration of the event, plus 60 minutes from the finishing time of the event.
- 17. Alternatively, students can sign a sign-in sheet which will have the names of those students who accepted the invitation printed on it.
- 18. Any student who did not sign the sheet nor scan their QR code to record their attendance can still have their attendance credited manually by the event owner once it can be verified.
- 19. After the Event has concluded, the Event organiser must manually mark the attendance of any students who signed their names who they did not scan the QR code. Please note a student may be marked as invited, but if they have not recorded their attendance via the QR code the event owner must mark the attendance (manually) using their STLR dashboard.
- 20. The Event Organiser must also access the Event from their STLR Dashboard and award achievements to attendees and volunteers (if any). Before awarding achievements, the event owner must assign the achievements for each competency that is tagged under the event. No achievements can be awarded until the achievements are assigned for the attendee role and volunteer role.
- 21. The achievements will be recorded for each student and can be viewed from within their STLR Dashboards as shown in the following screenshot
- 22. The students' competency profiles will be updated and they can now include this Event in any Student-Configured Transformative Learning Export File that they choose to create





Achievements

Civic Knowledge Skills & Experience	Exposure: The student displays a willingness to learn and grown by participating in the activity. She/he has an awareness of her/his current perspectives related to the core competency and maybe development an understanding of what the competency details.	Integration: The student can clearly articulate an understanding of the learning activity as it relates to the core competency and its value for her/his life. The student is questioning, planning, or beginning to expand upon previously held understandings of self, community, behavior, or environment.	Transformation: The student provides strong evidence of a learning experience that resulted in profound growth or major shift in values, beliefs or perspectives in the core competency and this may be evident through changes in behaviour, speech, or ability.	
Global Culture Competence	Exposure: The student displays a willingness to learn and grown by participating in the activity. She/he has an awareness of her/his current perspectives related to the core competency and maybe development an understanding of what the competency details.	Integration: The student can clearly articulate an understanding of the learning activity as it relates to the core competency and its value for her/his life. The student is questioning, planning, or beginning to expand upon previously held understandings of self, community, behavior, or environment.	Transformation: The student provides strong evidence of a learning experience that resulted in profound growth or major shift in values, beliefs or perspectives in the core competency and this may be evident through changes in behaviour, speech, or ability.	

12.3.9 Tier 2 Process Step 2.3: Fixed Location Management

Sports Centre:

A student scans the QR code to record their attendance at the gym session/gym class. To receive exposure STLR recognition a student must attend at least three classes/three gym sessions. The report 'event attendees' is used to monitor the attendance of students. As part of a quality check the event attendee report is cross checked with sign in details from the gymnasium. When a student has recorded three sessions at the gym/three gym classes they will be awarded exposure recognition under the Health & Wellbeing competency.

For this to happen to events are set up:

- Title: 'To record your gym session/class attendance'. Weekly event is set up "to record" the student's attendance. Student will not be awarded achievements on this event. This will be evident in the 'event attendee' report
- 2. Title: 'You have received STLR recognition from the gym'. This event is set up by STLR administrators and is set by using the individual invite feature. When a student is listed as attending the gym/class in the above report 'event attendee' and cross checked with the sports office the individual will be added and awarded achievements, that is exposure recognition under the Health & Wellbeing competency.

3.

Library:

- 1. Title: to record your borrowings form the library—weekly event is set up "to record" the students borrowing books from the library. Students will not be awarded achievements on this event. This will be evident in the 'event attendee' report
- 2. When a student is listed as borrowing the three books from the above report 'event attendee' and cross checked with the library records the individual will be requested to submit a reflection and awarded achievements accordingly, that is exposure recognition under the Research & Innovation. The student's reflection is assessed as in 7.2.7

12.3.10 Tier 2 Process Step 3.1: Student Transformative Learning Export

The Student Transformative Learning Export is a <u>point-in-time record</u> of all achievements the student has received from participation in STLR tagged Events, Continuous Assessments and Individual





Reflections. Achievements may also be recognised following submission from engaging with 'Fixed Location' activities (Library and Gym as at June 2020). The capability to create exports is accessible to the student anytime via the 'Student Exports' section (Figure 4) of their individual Transformative Learning Record (STLR) dashboard

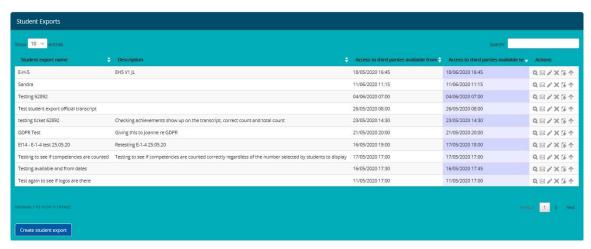


Figure 4: Student Transformative Learning Exports Dashboard

Students can create as many exports as they wish and the value of this capability is that it allows students to customise particular exports for specific roles they may be interviewing for. For example, a business student pursuing a role in business may wish to emphasise Teamwork and Leadership achievements. It should be noted that students can only configure the export with achievements they have been awarded. The export displays the following (Figure 5 shows a sample):

- Student name
- TU Dublin Logo
- TU Dublin address
- Stamped with "Student Export"
- Date stamped* (time of creation)
- Introduction paragraph
- List of competencies
- Count of achievements under each competency up to time of print
- Total count of achievements up to time of print
- Selection of achievements under each competency
- Description of each competency
- Description of achievement level
- QR code at the bottom of the transcript

Once created, students can share individual their Student Transformative Learning Export by printing a copy and presenting it in person, emailing a copy or uploading it to their Achieve@TUDublin ePortfolio.





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	Civic Knowledge Skills & Experience	Count
CK	Exposure	9
SE	Integration	4
THE CHURCESCO	Transformation	¥
	Total	16
	Eupodure: Testing Resourc Capability Integration: Re-occing-y4-62871	
	Global Culture Competence	Count
C e	Exposure	5
C	Integration	
GRAL CULTURE LOMPETTACE	Transformation	4
	Total	15
	Health & Wellbeing Development	Count
H	Exposure	4
D	Integration	· · · · · · · · · · · · · · · · · · ·
THE OWNERS	Transformation	3
	Total	19
	Leadership & Teamwork	Count
T	Exposure	2
E.	Integration	T T
SAWADER E	Transformation	t .
	Total	10
	Integration: Re-decing v4 62871 Exposure: E.F-9 57 V2	
	Research & Innovation Competency Building	Count
R	Expasure	t t
C B	integration	5
REFARCH B	Transformation	7.
transa minana	Total	17

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Figure 5: Configured Student Transformative Learning Export (CSTLE) Sample

12.3.11 Tier 2 Process Step 4.1: Export to e-Portfolio

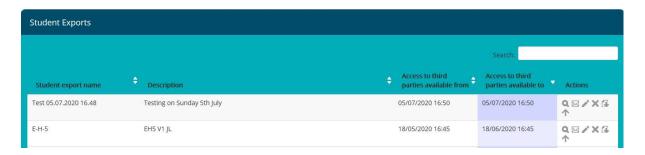
Preamble: STLR uses an in-built e-Portfolio known as Exabis. This has been branded as Achieve@TUDublin for branding and communications purposes. The Achieve@TUDublin e-Portfolio allows students to create CVs and to store artefacts associated with their learning (STLR and discipline-specific). It is anticipated that in the future, there will be greater use of e-Portfolios to demonstrate learning and in this regard, STLR is acting as a catalyst.

Steps:





- 1) The student navigates to the 'Student Exports' window in their Transformative Learning Dashboard as shown tin the screenshot below.
- 2) The student selects the Export file they wish to upload to their e-Portfolio.
- 3) The student clicks on the Up Arrow icon which is displayed under 'Actions' on the right hand side of the image below
- 4) The student will receive a confirmation message that the chosen Export has been uploaded successfully



12.3.12 Tier 2 Process Step 4.2: Printing

Preamble: Students may download and print their Student Transformative Learning Export. This may be undertaken so as to be able to present evidence of STLR achievements (with a specific focus on achievements linked with particular competencies) to an interview board.

Steps:

- 5) The student configures a Student Transformative Learning Export having regard to the context in which it is to be used
- 6) The Student downloads the Export using the down arrow icon under the 'Actions' box in the image below



7) The student prints the Export

12.3.13 Tier 2 Process Step 4.3: Online Sharing

Steps:

- 1) The student configures a Student Transformative Learning Export having regard to the context in which it is to be used
- 2) The Student selects the 'letter' icon under the 'Actions' box in the image below







- 3) The enters the email of the person to whom their export is to be sent to
- 4) The recipient will receive a pdf file displaying competencies/achievements configured by the student. The file will also contain a QR code (similar to that shown in the screenshot below) that will allow the recipient to verify the authenticity of the information provided by the student.

Scan the following QR Code to verify the student export contents:



12.3.14 Tier 2 Process Step 5.1: Competency Data Store Management

Preamble: The Competency Data Store (CDS) can be likened to a 'Data Warehouse' where all students' achievements (STLR achievements) are stored indefinitely¹⁸. As such, it is the definitive record of each student's overall record and is the source that is used for the production of the **Student Transformative Learning Export** (a student-generated point-in-time snapshot of the student's STLR achievements) and the **Student Transformative Learning Transcripts** (a student's STLR record which has been endorsed by the Registrar's signature). Staff who have STLR Admin rights or Moodle Site Admin rights can only access the CDS.

The CDS Management process step is concerned with supporting a review of all achievements held within the Competency Data Record Store in order to ensure quality assurance is maintained in awarding achievements.

CDS Management provides staff who have the requisite access rights to perform the following actions:

A. STLR admin can view all achievements per student, assignment, reflection and events within a defined time period.

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¹⁸ Indefinite retention of STLR records is underpinned by relevant Data Protection Legislation on the basis that it is in students' interest to be able to access their records even after they have left TU Dublin





- B. Assignment details include; list of students who were assessed against the assignment, associated Moodle course, submission date, grader, assessment date and achievements.
- C. Reflection details include student, approver, grader, submission date, assessment date and achievements.
- D. Event details include student attendees, student volunteers, owner, date, reflection grader, reflection submission date, assessment date and achievements.
- E. Achievements number of achievements per competency with advanced filtering (like a pivot table).
- F. Achievements can be filtered within a defined time period:
 - i. Students
 - ii. Assignments
 - iii. Reflection
 - iv Event
- G. STLR Admin can delete, edit or add achievements in the competency data record store.

At the end of each semester, a quality review of STLR achievements is undertaken with a particular focus on the distribution of STLR achievements awarded to students. This review could reveal irregular or inconsistent assessment patterns, for example the award of Transformative Learning achievements that exceed the UCO benchmark of 12%. In such circumstances it will be necessary to review, and if deemed necessary amend the STLR achievement awarded to individual students

STLR Admin Amending Transformative Learning Achievements in the CDS

- It should be noted that a STLR admin can over-ride the achievements awarded by a lecturer in the competency data record store.
- The STLR admin can delete, edit or add achievements in the competency data record store.
- In circumstances where a STLR admin over-rides an achievement, this (amended) achievement will supersede any achievement previously awarded by a lecturer. While this poses a risk inconsistency of data this process will mitigate the larger risk of inaccurate achievements being held within the CDS and being used to populate a Student Transformative Learning Export. (There is a slight risk that the student could print this before a review/amendment has taken place), however as Student Transformative Learning Transcripts are only produced after an end of term review of achievements, they will be accurate.
- Notification of student(s) where achievements have been altered

The following steps describe how this process is done:

Steps:

- 1. STLR admin (reviewer) engages with the assessor who awarded the achievements.
- 2. STLR admin (reviewer) and assessor agree and confirm achievements <u>need</u> to be edited/deleted/added.
- 3. STLR admin (reviewer) obtains supporting documentation from the assessor before achievements are to be amended.
- 4. The assessor amends achievements in assignment/event reflection/event attendees listing/reflection in line with new achievements agreed in Step 2 & Step 3.





- 5. Student will be notified via email
- 6. The STLR admin checks achievements are updated in the Competency Data Record Store is in line with step 4 above.
- 7. Where the assessor is absent and is unable to amend the achievements, the following actions will be undertaken:
 - The STLR admin and a nominated colleague will review the reflections/attendees listing (in the case of events)
 - The STLR admin and a nominated colleague will review the STLR rubric for the reflection/attendee listing
 - The STLR admin and a nominated colleague will edit the STLR rubric if necessary
 - The STLR admin and a nominated colleague will confirm the STLR rubric to use
 - The STLR admin and a nominated colleague assess the reflections/attendees listing against the agreed STLR rubric for the reflection.
 - External consultation/feedback may be sought where appropriate.
 - The STLR admin amends achievements, in accordance with the review, in the CDS
 - The student will be notified via email
 - Supporting documentation will be retained by the STLR Admin to support the change in the achievement award.

12.3.15 Tier 2 Process Step 5.2: End of Year Transcript Creation

Preamble: The Student Transformative Learning Transcript is a record of all the achievements the student has received from STLR. It is an accumulated count of all their achievements up to the last academic year (i.e. the end of June). It displays the following:

- Student name
- TU Dublin Logo
- Stamped with Registrars Official Signatory/Stamp*
- Date stamped*(time of creation)
- Introduction paragraph
- In addition to the introduction paragraph on the Student Transformative Learning Export the following text will be added. "This is to certify that "Student Name" achieved the following Transformative Learning achievements in TU Dublin"
- List of competencies
- Count of achievements under each competency up to the last academic year end (i.e. the end of June)
- Total count of achievements up to the last academic year end (i.e. the end of June)
- Description of each competency
- Description of each achievement level

Student Transcripts are stored indefinitely (for example a student completing a four-year degree would have four transcripts, but the fourth year transcript would have all the achievements counted cumulatively from year one). The transcript can be downloaded, and a pdf copy can be sent to a graduate at any time.







The following options are available to the student:

- Students will receive a copy of their transcript at the end of each academic year
- Graduates can receive a copy of their transcript by emailing STLR@tudublin.ie

Steps:

- At the end of each academic year, after the STLR achievements have undergone the final QA process, the Transcript is generated (with the details above) and held in a STLR admin transcript dashboard.
- 2. The transcripts are recorded/searchable using a student name and academic year.
- The records are stored using the student name, the student name is the key identifier.
- The STLR admin dashboard is controlled by STLR admin personnel.
- At the end of each academic year, the student is emailed a pdf copy of their transcript with the Registrars stamp/signature.
- 6. All STLR achievements from their time in TU Dublin will be "counted" on this transcript.
- The release of the emails to each student will be controlled centrally by STLR Administration.
- 8. The Transcript will be sent to the student's TU Dublin's email address (when a student is a current student).

Please note prior approval from the Registrar's office must be received before changing any aspect of the STLR transcript or export. Change requests must be approved in writing by the Registrar and Quality officer, and be kept on file.

12.3.16 Tier 2 Process Step 5.3: Student Transcript Requests Management

- 1. Students (and/or Graduates) email STLR@tudublin.ie with a request for a copy of their Transcript. Student ID should be included in the email.
- 2. The STLR Administrator accesses the Student Transformative Learning Transcript Dashboard and searches for the student details using the details supplied by the student / graduate.
- The STLR Administrator downloads the student's TL Transcript 3.
- The STLR Administrator emails the TL Transcript to the student/graduate
- The STLR Admin notes details on the TL Request Log (student ID, Name, Date Requested, Date Sent)

12.3.17 Quality Assurance

A number of Quality Assurance interventions have been designed in to the STLR Operating Model in order to reduce the possibility of errors and deviations and to assure confidence that each student' achievements have been captured accurately. Moreover, the STLR Moodle Plug-in, which underpins STLR processes and ultimately the student and staff STLR experience, has undergone extensive User Acceptance Testing by a TU Dublin cross-functional team comprising sixteen (16) testers representing all stakeholder groups who will use the system. A total of eighty-eight (88) tests were organised into twelve (12) groups of tests (A-L¹⁹) and distributed across the test team. As testers

¹⁹ Test Group G required revisions due to changes to Event Management functionality and so these revised tests are recorded under G2 in the test results spreadsheet





completed their assigned tests, they completed an online form recording their name, details of the test including its outcome and their name. Tests which failed or where the outcome was unclear were referred back to Enovation (Plug-in Developer). Once a remedy was identified for the test which failed, the test was executed again to ensure the problem had been fully resolved. The process worked well in that aside from identifying and fixing 'bugs', it was possible to enhance the functionality, for example, the process by which students receive their STLR Transcript was altered following approval from the STLR Steering Group. In describing quality interventions in succeeding sections of this document, reference (as appropriate) is made to the relevant test group which validated the functionality associated with process steps set out in Figure 3.

The approach adopted is aligned with a number of key QQI Principles namely: the creation of a culture of continuous improvement, a commitment to the use of external expertise and a focus on implementation. The transparency inherent in the approach supports an ethos of 'tell us what you do, show us that you do it' thus providing confidence for stakeholders particularly students, employers, and TU Dublin management.

The QA interventions identified in the process architecture (Figure 3) are described as follows:

QA 0.3 (Supports 'Auto Enrolment of Students in Moodle')

Desired Outcome	Action	Checks & Controls	Comments
Students are auto enrolled accurately in Moodle modules (where modules exist) using student context data from Banner	 Extract student and course data from Banner Enrol students in Moodle using course data from Banner 	 Verification of the auto enrolment functionality by UAT tests A to C which were performed by a member of the Blanchardstown IT Team Generation of error emails if file upload failure occurs and/or file process failure occurs to allow manual intervention Availability of enrolled student list to allow sample checking that auto enrolment has executed correctly Access to a User Interface for Administrators to allow checking and manipulation of the mapping process Students can be manually enrolled or can self-enrol in the event that auto-enrolment fails Availability of a detailed User Guide for IT Admin 	Test Groups A, B and C





QA 1.5 (Supports 'Student participates in STLR')

Desired Outcome	Action	Checks	Comments
Students are offered STLR- tagged CAs that are valid and effective with minimal additional effort from academic staff	 Liaise with staff Supply User Guides Train staff Provide Training materials Consultation with STLR staff Integrated TL Grading & Feedback on Moodle 	 Schedule of tagged CAs Availability of User Guides Training Records Availability of training materials Rubric and Competencies agreed External Benchmarking of STLR Achievements End of Term QA Review of STLR achievements distribution 	Test Group E
STLR-tagged Events are appropriate and effective and can be targeted at different student cohorts	 Prior Approval Publish a schedule Tag the event Supply User Guides 	 List of approved events Schedule of approved events Event is linked to a competency Availability of User Guides Accuracy of attendance records 	Test Group G
Student Reflections	• Supply User Guide • Create Rubric	Availability of User GuideRubric and Competencies identified	Test Group F

QA 2.4 (Supports 'Student is awarded Transformative Learning Achievements)

Desired Outcome	Action	Checks	Comments
STLR achievements awarded	Ensure appropriate	• Each tagged CA has a	
to students are consistent	Rubric	Rubric	
and reflect their capability	 Ensure consistency of 	 Staff Training – staff 	
	grading	cannot tag a CA without	
	 Ensure Efficacy of 	having attended STLR	
	grading mechanism on	training	
	Moodle	Availability of a	
		Competency Data Store	
		to record all STLR	
		achievements	





Students receive STLR credit when they attend approved events	Ensure attendance is recorded (manual) Ensure correct functioning of QR code attendance tracking	Monitor achievements awarded by lecturers UAT Test results Cross-check of attendance record Sample checking of students who attended against attendance recorded	
Student-initiated reflections are assessed appropriately	 Ensure appropriate Rubric Staff with access right as reflection approver can only release achievements to student Ensure assessors are trained Supply user guides 	 Each Reflection has a Rubric Training Records Availability of User Guides 	

QA 3.2 (Supports 'Student Configures Export File')

Desired Outcome	Action	Checks	Comments
Students can create 'Configured Student Export' files views, which reflect priority presentation of their	 Ensure student can only prioritise achievements credited to them 	Plug in User Acceptance Tests	Test H-5
achievements	Students can prioritise presentation of their achievements	Plug in User Acceptance Tests	Test H-5

QA 4.4 (Supports 'Student Publishes their Achievements')

Desired Outcome	Action	Checks	Comments
Students can share their	• Export to	Plug in User Acceptance	Test I-1
achievements by: 1) exporting a	Achieve@TUDublin	Tests	
configured file (step 3) to their	Dublin (Exabis	Plug in User Acceptance	Test I-5
Achieve@TUDublin ePortfolio;	ePortfolio system)	Tests	





2) Printing a PDF version and 3)	• Students		Tests I-6
sending a link and QR code to a	configured	Plug in User Acceptance Table	and I-7
third party	achievement be downloaded	Tests	
	satisfactorily		

QA 5.4 (Supports 'Student Acquires STLR Record')

Desired Outcome	Action	Checks	Comments
Students are automatically emailed a STLR (authenticated by the Registrar's Department) Transcript after	 End of term QA review Automated bulk release mechanism following QA review STLR@TUDublin.ie email Documented Process 	Conformity of STLR assessors to UCO distribution Audit sampling of counts on student's transcript	Test Group M

12.3.18 User Guides

The following User Guides are included as Appendices as set out in Table 3 below.

User Guide Number	Title	Appendix
1	Staff User Guide	6
2	Student User Guide	7
3	STLR Admin User Guide	8
4	IT Admin User Guide	9

Table 3: STLR User Guides

13.Performance Evaluation

13.1 Key Performance Indicators (KPIs)

Figure 3 below shows the agreed key performance indicators approved by the STLR Steering Group. Cognisant of the need to understand any impacts generated by the STLR pilot, the agreed framework includes thirty-three metrics, which address the interests of three broad stakeholder groups: TU Dublin, Students and the Community representing the interests of employers and community groups. It can be seen that within each stakeholder grouping, a number of hypotheses have been





developed with an overarching hypothesis namely, STLR provides an enriched and effective learning experience supporting TU Dublin's ability to achieve its mission²⁰.

The hypothesis approach is taken so as to ensure that any judgements made, or conclusions drawn with respect to any impact of STLR may have, are made on concrete evidence rather than on supposition or putative benefits. The approach recognises explicitly that there may not be any impact and as such it lends itself to robust scientific study and the promulgation of findings to interested parties via peer reviewed journals. A final point to note is that the approach supports both the QA Culture and Implementation Principles by providing hard evidence of progress and opportunities to raise questions about progress, and how progress might be improved.

Stakeholder	Hypotheses	Population	Objective of Metric	#	Metrics
	STLR has no effect on retention	Any student who did not leave between Oct 31 and Mar 31 in a given year	Determine if retention rates have increased or decreased due to STLR	2 3 4 5 6	Student retention by semester, by year, by programme and by school for a specified period Student retention compared to years on year, by semester, by programme and by school Student retention by demographics compared to year on year Overall student retention amongst students who participated in STLR and those who did not participate Schools student retention Vs Student STLR Participation Schools student retention Vs Student Non STLR Participation Qualatitive measures of Students engagement who stay Vs who didn't stay (e.g. Life satisfaction survey)
TU Dublin	STLR has no effect on progression	be found in a TU Dublin programme in year 4	Determine if progressions rates have increased or decreased due to STLR	8 9 10	#/% of students who progressed by year, by semester, by programme and by school #/% of students who particpated in STLR progressed by semester, by year, by programme and by school #/% of students who didn't particpate in STLR progressed by semester, by year, by programme and by school Qualatitive measures of students engagement who progressed V who didn't progress
	Staff will not engage with STLR	All staff on campus	Extent of particpation in STLR by staff	13 13a 13b 14	# of staff who attended STLR training # of staff who engaged in STLR, i.e. tagged an event or assessment # of staff who have STLR tagged an event per semester per academic year # of staff who have STLR tagged an assessment per semester per academic year # of staff who have STLR tagged an assessment per semester per academic year STLR tagged event/assessments split between academic staff and professional staff per semester per academic year Qualatitive measures of staff engagement who engage V who didn't engage
Stakeholder	Hypotheses	Population	Objective of Metric		Metrics
Student		Students on campus and in scope of STLR	Extent of particpation in STLR by students Learn more about the students learning experience	17 18 19 20 21 22 23	#/% of students who received at least one STLR recognition #/% of students who received more than one STLR recognition #/% of students who received exposure STLR recognition #/% of students who received practical students who received integration STLR recognition #/% of students who received transformation STLR recognition #/% of students who received transformation STLR recognition #/% of students who received transformation STLR recognition #/% of students initiated STLR events/asessments Student participation by demographics Student Net Promoter Score - year on year Student propensity to participate survey
	STLR does not improve students employability skills	Students on campus	Learn more about students employability attributes	26	Students emotional intelligence survey with students participating in STLR Vs students no particpating in STLR Student employability attributes (to include self efficacy) qualitatively measured before they exit their programme. Graduates satisfaction survey within one year of employment - STLR Vs Mon STLR students
	STLR has no impact on the students' GPA	Students on campus	Determine if GPAs have increased or decreased due to STLR	29	Student GPAs by semester, by year, by programme and by school historically (previous 5 years) Student GPAs by semester, year, programme, school and demographic measure year on year (to include STLR roll out period) Student GPAs who participated in STLR Vis Student GPAs who did not participate in STLR
Stakeholder	Hypotheses	Population	Objective of Metric		Metrics
Community	STLR does yield students who are more productive, creative, ethical and engaged citizens	Students who graduated	Determine if students can meet the needs of the community		Measure the community involvement among students (eg # of volunteering hours and # of community based events hosted on campus) Employer feedback via the Industry panel

Figure 6: STLR KPI Framework

13.2 Reporting

At the end of each semester and academic year a detailed report is presented to the Steering Group and Top Management Group. The report is generated using downloads from Moodle, learnings from the STLR leads, survey responses from stakeholders: students, staff, management and industry. In the report presented to the Steering Group and Top Management Group in June 2020 the following data was presented:

- 1. Overall Student Engagement
- 2. Engagement: Programme Perspective
- a. Number of STLR tags per programme
- b. Student Engagement per Programme
- 3. Staff Engagement
- a. Academic Staff
- b. Professional Staff

²⁰ TU Dublin's mission is 'To make the World a better a Place' as stated in its Strategic Plan 2020 to 2030





- 4. Competencies Tagged
- 5. Staff Recognition
- 6. Qualitative Feedback from surveys
- 7. Progress reporting on specific milestones within the project
- 8. Expenditure to date
- 9. Learnings and Impact
- 10. Next Steps

The source of this information is the Moodle Plug-in Competency Data Record Store (CDS), which can only be accessed (via a number of reports) by staff who have STLR admin rights or overall Moodle admin rights. Figure 7 illustrates the reports that are downloadable into an excel file from the Competency Data Record Store.

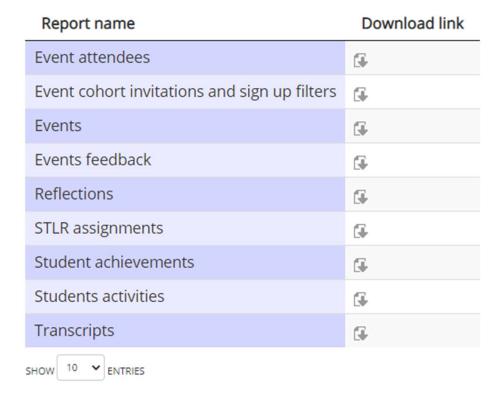


Figure 7: Reports downloadable from the Competency Data Record Store

From September 2020 this information will be inputted into a data analysis tool to:

- 1. enable data be presented in a timely manner to stakeholders
- 2. allow directing marketing to specific student cohorts/programmes/department to promote engagement.

8.3 Budget Performance





Budget performance is managed and closely monitored by a representative from the finance department to ensure accountability of funds expended. During each monthly Steering Group meeting an update on financial is provided from finance. Savings are made without negatively impacting the project were possible. All purchase requisition, invoices, deliveries and payments are processed in line with the University's' approved policies and procedures. The project has a separate cost code and the budget holder must approve all expenditure.

14. Improvement

At the end of each semester, a report is produced which includes a section dealing with 'Learnings' their impact and a proposed action plan. As an example, see the following Table 4 from the report produced for Semester 1 2019/2020. It can be seen that a wide variety of improvements (dealing with people, process and technology) have been identified based on key learnings and that specific actions have been identified to implement those improvements.

All actions will be reviewed and actioned by a member of the STLR team. This approach is supportive of the QA Culture principle as demonstrably there is a commitment to driving improvement and enhancement. Coupled with a strong planning and focus on implementation, the possibility that the identified actions will be allowed to atrophy is diminished significantly.

Learning	<u>Impact</u>	Pro	pposed Action Plan
Staff development – Transformative Learning as an approach is quite new among academics. Many staff are unknowingly practising transformative learning, for example creating critical dilemmas and requesting reflective journals from students. Initial findings suggest e-Portfolio are not used widely used among staff. Formalising support for staff in transformative learning and e-Portfolio will lead to improved methods of assessments, delivery and	STLR has the potential to impact pedagogical approaches over time e.g. increased focus on reflection and use of e-Portfolio. Also, it has highlighted the need for strong governance and stakeholder involvement in the management of Moodle. STLR training provides an initial introduction to transformative learning and helps staff integrate into transformative learning. But to reach the full potential of Transformative learning in the student experience structured CPD should be developed in Transformative Learning and e-Portfolio.		Providing CPD for staff to develop their skills in using e- Portfolio as part of their practice





Learning	<u>Impact</u>	Proposed Action Plan
The less engaged programmes within the school remains a challenge - to get members of the programme to provide STLR tagged opportunities for their students. Time constraints may be an issue here. It is important to note this	Students on these programmes will have gained less STLR recognitions than their counterparts. Transformative Learning	Target common modules across several programmes to provide STLR tagged opportunities for students.
does not imply these programmes are not providing Transformative Learning experiences, it merely states students are not receiving recognition for the skills they have developed during these experiences. A one to one meeting is the most	is not an imperative during discipline teaching.	Provide programme by programme training sessions Provide programme
successful method of getting a staff member to engage in STLR - tag a continuous assessment or event in one-to-one meetings, constant communication via email and many follow up meetings. We have also noticed when a staff member from a programme STLR tags an event or continuous assessment it promotes other lecturers from the same programme to STLR tag their events or continuous assessment.	effectively providing one to one informal training session on an ongoing basis.	by programme training sessions
opportunity to submit additional reflections (for example based on work experience and/or volunteering activities). Students have not availed of Library or Gym usage to gain STLR recognition. Only one student has submitted a reflection for part time work. Students may not know STLR recognises all their transformative experiences beyond their discipline and TU Dublin experiences.	Students are not applying reflective practice in all their experience inside and outside TU Dublin. Thus, they are not bringing all their Transformative Learning experiences into their record. Students are not identifying the skills they are developing.	 Marketing campaign to highlight STLR recognise transformative learning experiences beyond discipline and TU Dublin experiences. Contact graduates from last year who participated in STLR seeking their endorsement of STLR





Learning	<u>Impact</u>	Pro	pposed Action Plan
Opening events out to all students within the school is met with some challenges: • shortage of resources for example, large theatre/auditorium to facilitate greater gatherings, • short lead times, that is from the time of the STLR team learns about an event taking place to the actual date and time of the event.	Events are often programme contained, this does not allow the Transformative Learning experience to be promoted to all students. All transformative learning experiences should be open to all students regardless of students belonging to a programme. Current practice is not promoting interdisciplinary learning.	2.	Access needed to a common area where transformative learning events could be held allowing all students to attend. Promote a simple access mechanism to allow timely notification to the STLR team of events that can be STLR-ised
Rigorous quality checks are necessary and will ensure ongoing credibility and opportunities for improvement. STLR grading by staff members needs to be supported to ensure accurate alignment with pre-defined rubrics and the results curve predicted by UCO data. Ongoing checks are currently taking place on semester 1 results	Resource intense, quality needs to be emphasised to staff during each stage of the STLR process.	2.	Quality process needs to be documented and widely distributed to staff to allow an insight in the quality process within STLR. Encourage staff to engage peer review (colleagues and STLR ream)
Interest from staff in other departments and campuses in deploying STLR: department of engineering and department of informatics.	Resources consumed liaising and communicating with other departments.	1.	Define scope of STLR going forward.
Stakeholder's qualitative feedback remains positive - from students, parents during the open evening, guidance counsellors, employers and staff.	Resource intense following up with all stakeholders to ensure we hold their interest and receive their continued feedback.	1.	Continuous consultation is needed from all stakeholders. Follow up is needed with all interested stakeholders.
 Staff coming forward to STLR tag continuous assessments for semester 2 is slow in comparison to semester 1. Possible reason is: 1. Time pressure between semester 1 exam corrections and planning for semester 2. 2. Lecturers' modules changing from semester 2 in prior academic year. 	Lower numbers of STLR tagged continuous assessments which will lead to lower levels of engagements. Students not gaining STLR recognition on their record.	 2. 3. 	Connect with staff before Christmas break and immediately in January. Hold programme training sessions in January Reaffirm role of STLR in overall





Learning	Impact	Pro	posed Action Plan
			development of students
Competencies tagged – Global culture competency and Civic Knowledge Skills and Experience were both the least tagged. This is supported by the fact students were less familiar with these competencies when introduced to them. Also noted there are fewer opportunities for students to engage in transformative learning experience under these competencies. International Business programme did not tag any opportunities under the global culture competency.	Fewer opportunities under these competencies leading to fewer transformative learning opportunities for students.	1.	Emphasise resources on creating more opportunities and tagging existing opportunities under these competencies.
Students are not identifying the employability skills in their programme. Informal feedback has found students could not identify the employability skills being developed within their discipline programme.	Students not critically evaluating their skillset, not being able to promote their skillset to prospective employers. TU Dublin programmes not portraying their employability skillset to students.	2.	Propose an employability mapping exercise at programme level to display employability skillset within programmes. Deeper dive into employability skillset into module level and continuous assessment level proposed.
Part time student not gaining STLR tagged opportunities – Only one continuous assessment is STLR tagged, work based project. This is in contrary to the interest the part time students portrayed during the STLR introduction presentation in October 2019.	Low uptake by lecturers bringing low student engagement which in turn will lead student gaining little STLR recognition.	2.	STLR representation at part time course board. Increased resources applied to increase student engagement
Reflective practice is not widely applied in the teaching practice or as an assessment strategy – staff are not using transformative learning/reflective practice in their teaching or while assessing students. Often when staff are applying these practices, they are unknowingly applying the transformative learning theory.	Where staff are not applying these practices, there will be a slower uptake on students to use this practice also.	1.	Providing CPD for staff to develop transformative learning practice in their teaching practice and assessment.





Learning	<u>Impact</u>	Proposed Action Plan	
		Promote adoption of e-Portfolios as part of teaching practice	
Initial findings suggest e-Portfolio are not being used by staff - a initial survey to staff suggest very little usage of e-Portfolios within the School of Business.	Students will be less likely to adapt an e-Portfolio if it is not embedded in their module/assessment.	1. Strong e-Portfolio structure needs to be rolled out. E-Portfolio should be adapted in year 1. Scope to introduce students to e-Portfolio when they join year 1 and at the end of each year ensure students update their e-Portfolio with their academic and STLR achievement	

Table 4: Key Learnings from Semester 1 2019/20

Furthermore, each student and staff member involved with STLR has access to an online 'Suggestion Box' which facilitates the gathering of feedback and suggestions. This mechanism is designed to capture suggestions and ideas from students and staff which can potentially address perceived weaknesses in STLR processes and/or the overall staff/student experience. Also, it may provide a rich source of ideas as to how STLR overall can be improved. Such an approach is consistent with the Principle of Continuous Improvement and will serve to ensure that the STLR Team is receptive to feedback from key stakeholders. Once a suggestion is made, an email will be sent to STLR@TUDublin.ie where it will trigger the actions as set out in the flowchart presented as Figure 5.





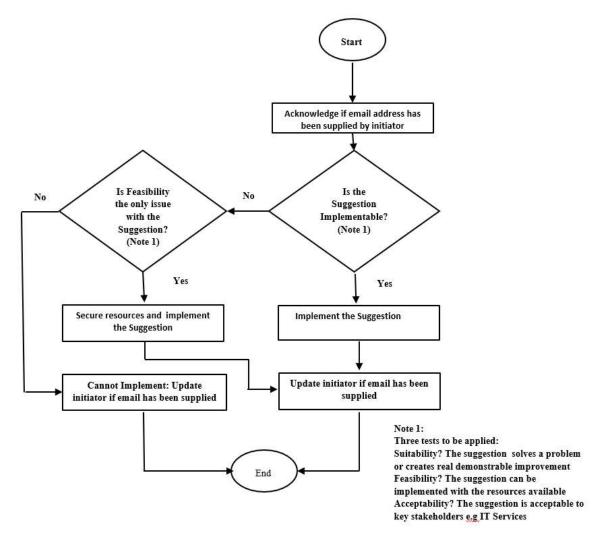


Figure 8: Process for Managing Suggestions

APPENDIX 1: STLR COMPETENCIES

Civic Knowledge, Skills & Experiences

Civic Engagement engages students in community volunteer and service activities using teaching and reflection to nurture civic responsibility, caring, and community mindedness, to promote a commitment to public life; ethical, critical reasoning and deliberation; and working for the common good of everyone.





Leadership and Teamwork

Leadership is a personal journey resulting in understanding and skill sets that students need to positively and ethically influence and mobilise others. We equip students with knowledge and skills to affect individuals, teams, organisations, the community and society for the greater good.

Health and Wellbeing Development

Health and Wellbeing integrates the physical, spiritual, emotional, intellectual, environmental, financial, occupational, and social wellbeing of students to help them live, learn, and work effectively, living life with vitality and meaning so they may reach their goals as scholars, employees in the workplace, citizens in Ireland.

Global Cultural Competence

Global Cultural Competencies seek to prepare students to communicate effectively in a complex world, to function in multiple and diverse environments, and to adapt to the continuously changing global society through an attitude of awareness, consciousness, and respect.

Research and Innovation Competency Building

Discovery and Innovation ability encourages students to approach life with a spirit of enquiry, to develop a problem-solving mentality using information, knowledge and creativity in tackling business and social problems of the day.

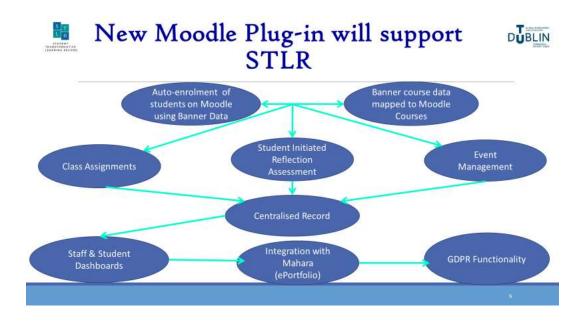
Discipline Knowledge

Discipline Knowledge includes content knowledge that students need in their chosen field of study to take charge of their own active learning, reflection, and educational motivation, to ask questions, to seek feedback, and to make use of all educational resources available to become scholars and professionals in their fields. Assessments of this competency are captured on the student's Academic Transcript.





APPENDIX 2: STLR PLUG-IN CAPABILITIES



The new Plug-in will deliver the following functionality:

Class Assignments: The ability to assess the competencies with an additional rubric for class assignments in a way that does not impact, alter or restrict the grading methods used for the academic side of the assignment

Event Tracking: The ability to have an event setup, and tracking system which records the students' attendance at the event and auto tags them on a relevant competency against specific events.

Reflection Assessment: The ability to have a custom personal reflection assignment for a student, prompted by their own experiences (gained perhaps from a part-time job or acting as a volunteer) and initiated by them or on their behalf by a staff member. Similar to the class assignments, the reflection would need to be assessed and feedback provided by STLR-trained staff (not necessarily all of whom are academics).

Centralised record providing the student with the ability to export a print copy of a customised transcript using the competency information collected within parts 1-3. This will allow the student select and order a subset of the recorded achievements for the export. The record must have a method of verification and the capability of being exported as a file to an ePortfolio platform.

A dashboard that shows the recent information and summary of the collated experiences.

An ePortfolio that the students can use for lifelong learning and as a method to store evidence of their learning journeys

Support for **Auto Enrolment** of students (business initially) on Moodle using data exports from Banner i.e. when students log on to Moodle, they will see their Moodle Modules without having to use an enrolment key.





APPENDIX 3: STUDENT CONFIGURED OUTPUT FILE



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CIVIC KNOWLEDGE SKILLS & EXPERIENCES	Count
Transformation	0
Integration	0
Exposure *	1
Exposure: Slobhan Killion - Zeminar - 8th October, 2019	
GLOBAL CULTURE COMPETENCE	Count
Transformation	0
Integration *	Ť.
Exposure	0
Integration: Fionnuala_Darby_H3029_Micro_Aggression_2019/20	
HEALTH & WELLBEING DEVELOPMENT	Count
Transformation	0
Integration	0
Exposure *	1
Exposure: Mental Health and Exercise - James Claffey - 10th October, 2019	
LEADERSHIP & TEAMWORK	Count
Transformation	0
Integration **	2
Exposure	0
Integration: Amanda_Dixon_SMCOH2015_Regulatory Environment Integration: Susan_Looby_BSSTH2012_HRM1	
RESEARCH & INNOVATION COMPETENCE BUILDING	Count
Transformation	0
Integration	0
Exposure *	





APPENDIX 4: STLR GENERIC RUBRIC

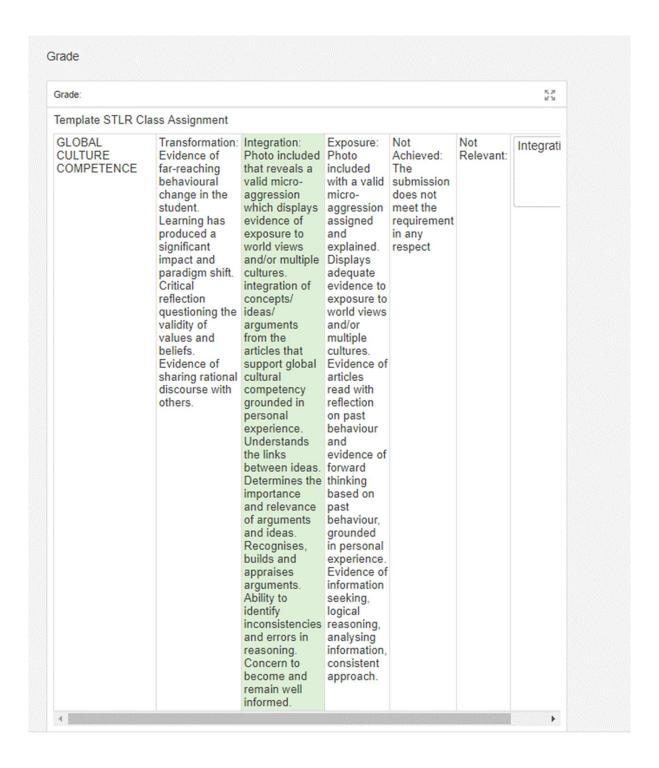
Competency	Transformation	Integration	Exposure	Not Achieved
CIVIC KNOWLEDGE SKILLS AND EXPERIENCES	The experience has prompted a major shift in the student's attitude; and/or she/he now views service and civic action as a rewarding use of time for personal growth and/or to contribute to addressing community challenges by initiating action with a diverse team.	The student's experience led to new insights related to civic identity and to possible solutions to addressing social issues. She/he now desires to serve, be more involved in a diverse community, and/or improve confidence in self as a change agent.	The student took part in, or heard results of, a service or civic activity and/or is able to voice her/his perspective on the importance of these activities to her/himself and society.	The student has not yet provided evidence of openness to or awareness of the concepts listed in exposure for this competency.
GLOBAL CULTURE COMPETENCE	The experience led to the student's new identity as a global citizen, and she/he now seeks interactions and growth from diverse communities and cultures.	The student's perspective has expanded to value different cultural worldviews and she/he is able to articulate a sense of identity in a global context.	The student displays an openness to learning about global and cultural differences and/or took part in an activity where she/he was exposed to worldviews of other cultures.	The student has not yet provided evidence of openness to or awareness of the concepts listed in exposure for this competency.
HEALTH & WELLBEING DEVELOPMENT	The experience has profoundly shifted the student's commitment to physical, spiritual, emotional, intellectual, environmental, financial, occupational, and/or social wellbeing as demonstrated by care of self, others, or environment.	The student displays an increased prioritization of one or more of the eight dimensions of wellbeing, can identify areas of weakness, and/or has developed (or is developing) a realistic plan for intrinsic growth in one or more of these areas.	The student is exposed to one or more dimensions of wellbeing, displays a willingness to learn about them, and/or can identify her/his current perspectives on one or more of the areas.	The student has not yet provided evidence of openness to or awareness of the concepts listed in exposure for this competency.
LEADERSHIP & TEAMWORK	The student has developed her/his identity as a leader due to the experience, and actively seeks to empower others/teams and/or advance a cause or causes.	The experience has led the student to recognize her/his leadership qualities; and/or desire to use her/his influence to empower others/teams and/or advance a cause or causes.	The student is open to improving her/his views of leadership and/or participates in activities where she/he observes others using their influence to empower others/teams or advance a cause or causes.	The student has not yet provided evidence of openness to or awareness of the concepts listed in exposure for this competency.
RESEARCH & INNOVATION COMPETENCE BUILDING	The experience prompted a major shift in the student's perspective about the unknown, such that she/he now values curiosity, seeking answers, multiple methods for solutions, risk-taking, communicating the complexity of multiple viewpoints. The student may have developed a new identity as a researcher, artist, or scholar producing new knowledge or works.	The student can now recognize barriers to seeing her/himself as a researcher, artist, or scholar; she/he has developed a plan to continue expanding her/his identity as a problem solver; and/or the student is starting to expand her/his appreciation of diverse methods, outcomes, and interpretations.	The student was exposed to primary research, scholarly activity in their field of study, or creative works; and/or the student can articulate the connection between the learning experience and some aspect of the discovery and innovation competency.	The student has not yet provided evidence of openness to or awareness of the concepts listed in exposure for this competency.







APPENDIX 5: EXAMPLE OF A CUSTOMISED STLR RUBRIC







APPENDIX 6: STAFF STLR DASHBOARD USER GUIDE



APPENDIX 7:STUDENT STLR DASHBOARD USER GUIDE



APPENDIX 8: STLR ADMINISTRATOR STLR DASHBOARD USER GUIDE



APPENDIX 9: IT ADMINISTRATOR STLR DASHBOARD USER GUIDE



APPENDIX 10: MAPPING OF MOODLE MODULES

Moodle Mapping can be accessed here

APPENDIX 11: USER ACCEPTANCE TEST RESULTS JUNE 29TH 2020

The User Acceptance Test Results can be accessed here

Support tickets raised with Enovation during User Acceptance Testing of the IT platform can be accessed here





References

AMERICAN ASSOCIATION OF COLLEGES AND UNIVERSITIES (n.d.) Retrieved from https://www.aacu.org/value-rubrics

CLARKE, M., 2018. Rethinking graduate employability: The role of capital, individual attributes and context. *Studies in Higher Education*, **43**(11), pp. 1923-1937.

HART RESEARCH ASSOCIATES, 2013. It takes more than a major: Employer priorities for college learning and student success. Liberal Education, 99(2)

HEA (n.d.). Retrieved from https://hea.ie/assets/uploads/2017/04/HEA-2018-2022-Strategic-Plan-FINAL.pdf

HIGHER EDUCATION SYSTEM PERFORMANCE FRAMEWORK 2016 – 2020 (n.d.) Retrieved from https://www.education.ie/en/Publications/Education-Reports/higher-education-system-performance-framework-2018-2020.pdf

JACKSON, D., 2013. Student perceptions of the importance of employability skill provision in business undergraduate programs. *Journal of Education for Business*, Vol. 88 No. 5, pp. 271-279.

KING, K., FARRELL C. M., WALVOORD, M. E., & WIMMER, B. (2018). Fostering a campus-wide community around student transformative learning. In M. Welch, V. Marsick, & D. Holt (Eds.), Building transformative community: Enacting possibility in today's times, Proceedings of the XIII Biennial Transformative Learning Conference (pp. 624-631). New York, NY: Teachers College, Columbia University.

MEZIROW, J. and TAYLOR, E.W., 2009. *Transformative learning in practice: Insights from community, workplace, and higher education.* John Wiley & Sons.

MURPHY, M., 2006. Leadership IQ study: why new hires fail. International City-County Management Association.

QQI *Policy.* (n.d.). Retrieved from www.qqi-qaguidelines.com/policy.html#policy-sections.

STRACHAN, L., 2016. Teaching employability skills through simulation games. *Journal of Pedagogic Development*, Vol. 6 No. 2, pp. 8-17.

WORLD ECONOMIC FORUM, 2016. New vision for education: Fostering social and emotional learning through technology, 2016, World Economic Forum Geneva.