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Teaching, Learning and Assessment Strategy 2021 - 2024

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1. Strategy Development Process

Teaching, learning and assessment at CCT College Dublin takes place in the national and international context of Higher Education. We recognise the importance of a carefully considered teaching, learning and assessment strategy spanning the diverse needs of the institution, its learners, programmes and stakeholders. This is the Teaching, Learning and Assessment Strategy 2021 to 2024 and supports and enhances teaching, learning and assessment across the institution, faculties, and programmes. The previous strategy spanned five years, but with recent external influences, including the global coronavirus pandemic and national institutional initiatives, such as the Student Success Strategy, the approach to the development of this strategy spans three years (2021 to 2024) to reflect emerging changes from a micro and macro perspective. The strategy reflects the current practices within the environment while recognising the on-going positive developments across the national higher education sector and beyond, allowing for continuous audit, enhancement, and improvement. One of the significant enhancements is the institutional focus on blended learning and student success, new programme development approaches and assessment strategies, together with new integration and alignment to relevant quality assurance and enhancement policies.

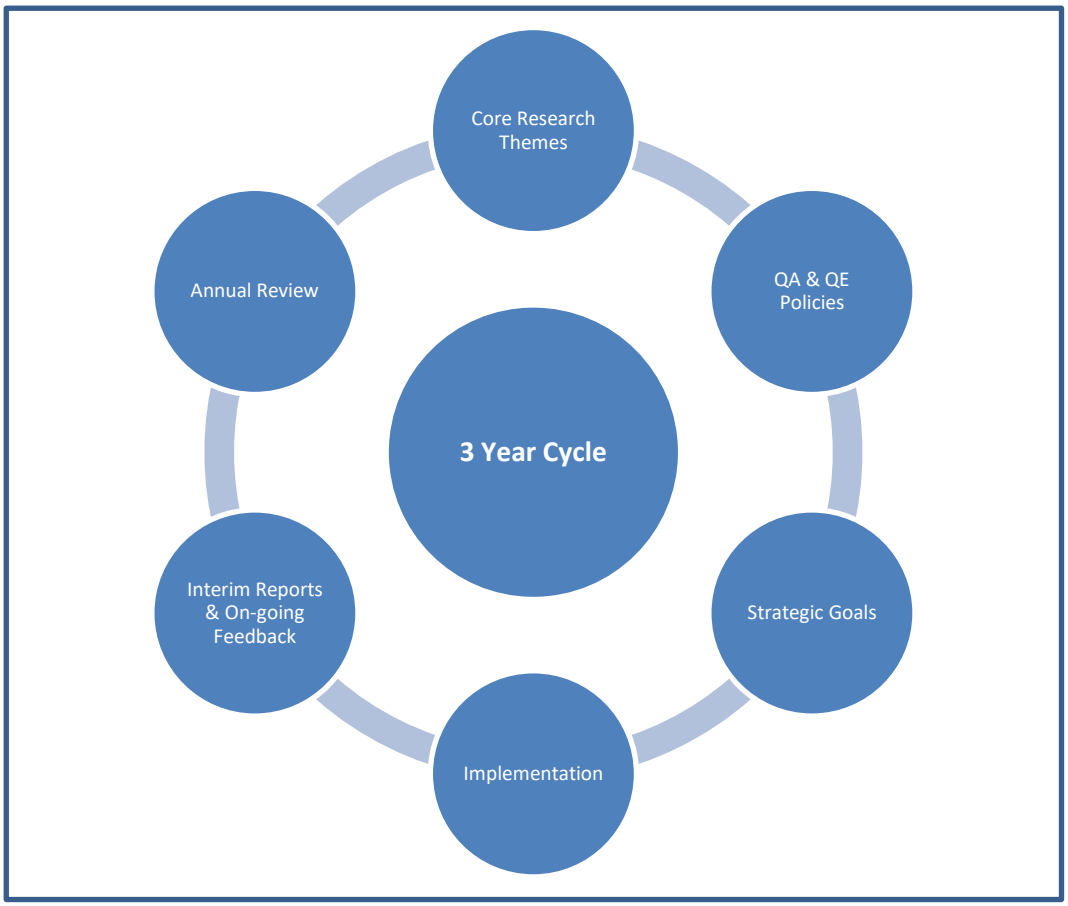
The philosophy for this strategy considers how our teachers need to prepare students for jobs that have not yet been created, to use technologies that have not yet been invented, and to solve social problems that have not arisen before. Our teachers have to do more than transmit educational content: they have to cultivate students' ability to be creative, think critically, solve problems and make decisions; they have to help students work better together, by developing their ability to communicate and collaborate; they have to build students' capacity to recognise and exploit the potential of new technologies; and they have to nurture the characteristic qualities that help people to live and work together (Schleicher, 2016). We must also be mindful of the challenge's students face when entering, or returning, to Higher Education and ensure we meet with their expectations and facilitate learning through well thought out pedagogically practices reflecting diversity, and ensure that 'equality of opportunity' (Dewey, 1966) is at the heart of what we do.

1.1 Strategy Development Life Cycle

The development of this strategy commenced in 2015 was fully reviewed in the summer of 2020. The strategy was extended to July 2021 to allow additional time to develop and build in suitable elements reflective of our approach to blended and online learning, fast tracked due to the global pandemic. This new strategy is constructed in a way that allows for continual monitoring and improvement through various feedback mechanisms, while also allowing for flexibility to respond to the changing nature of Higher Education and various stakeholder needs. The development framework expressed in Figure 1, on the following page, is achieved through the various sub strategies for teaching, learning and assessment together with continuous feedback to monitor measure and evaluate on an annual basis. The strategy is fully reviewed in July of each yearly cycle to consider thematic research, quality assurance and enhancement policy development, strategic goal achievement and progress, leading to implementation supported by continual

feedback culminating in an annual report for reflection and consideration for the subsequent strategic cycle.

Figure 1: Teaching, Learning & Assessment Strategy Development Life Cycle



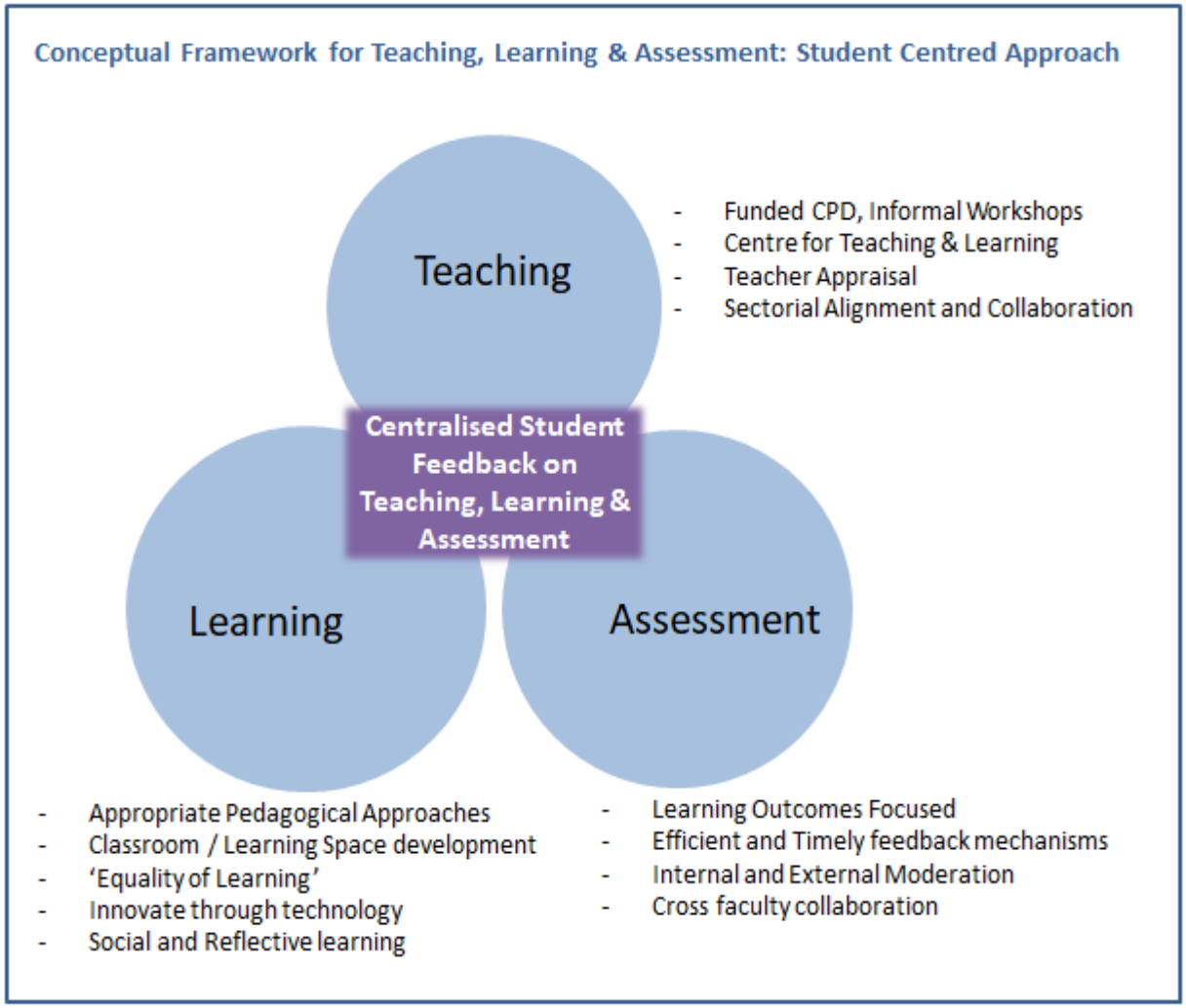
1.2 Student Centred Approach

A core activity within our strategy is to be student centred, whereby knowledge is constructed by students and that the lecturer is a facilitator of learning rather than a presenter of information. Some modules and programmes offer greater flexibility and accommodation for this type of learning approach, and we endeavour to build on this as we believe it affords the student an opportunity to participate in lively peer debate and collaboration, and the development of critical thinking and transversal skills. The literature (Lea et al., 2003; Gibbs, 1995) summaries the student-centred approach as follows:

- the reliance on active rather than passive learning;
- an emphasis on deep learning and understanding;
- increased responsibility and accountability on the part of the student;
- an interdependence between teacher and learner;
- the relationship between learners is more equal, promoting growth and development;

We believe an effective way to measure and monitor student-centred activities is through a number of feedback mechanisms. This approach ensures we do not treat feedback as an isolated activity on one element of our strategy, but to centralise it to ensure we are taking a holistic approach to being student centred. Student feedback is collated through faculty programme boards, student representative meetings and our end of semester evaluations, incorporating programme, and module and lecturer feedback. An annual review of the Teaching, Learning and Assessment Strategy occurs in July of each year which allows for consideration and further development over the summer months and actions to be implemented before the commencement of the next academic cycle. Figure 2 below outlines the conceptual framework for how we facilitate our student centred approach through holistic feedback.

Figure 2: Conceptual Framework for Teaching, Learning & Assessment: Student Centred Approach (CCT College Dublin)



1.3 Research and Policy Integration

Our teaching, learning and assessment strategy was informed by academic research relating to several themes, some of which were presented in our previous strategy that have been further enhanced. New themes have emerged, such as Student Diversity, Collaborative Learning and Group Work. The themes were informed by factors that are linked with successful transition and progression within Higher Education, such as a sense of belonging (Hausmann et al., 2007); social integration with peers (Wilcox et al., 2005); interactions with teaching staff (Cuseo, 2007); and exposure to new people and ideas (Pascarella & Terenzini, 2005). Together with this research, along with the empirical experience of our strategy development team, we have focused on the following five themes to inform the development of our strategic goals for this strategic period:

Core Research Themes
(The five research themes below are clickable links to the relevant sections presented in Appendix 1: Supporting Research for the TL&A Strategy)

A. Learning for Success
B. Student Engagement and Self-Efficacy Development
C. Student Diversity and Conceptions of Learning
D. Faculty Development and Pedagogical Innovation
E. Collaborative Learning and Group Work

In addition to academic research, our strategy development team referred to and integrated the core tenets of our quality assurance and enhancement policies to ensure a practical working strategy was produced. These specific interrelated polices are presented below:

CCT QA Policies that Inform the Teaching, Learning and Assessment Strategy

- Blended Learning (CCTP404)
- Group Assessment (CCTP501)
- Assessment Policy (CCTP502)
- Ethical Practice in Research (CCTP514)
- Scholarship, Professional Development, Innovation and Research (CCTP805)
- Academic Supports (CCTP901)
- Learning Environment (CCTP911)
- Self-Evaluation Monitoring and Review (CCTP1201)

Our strategy development team also reflected on other important strategic documents produced by CCT, together with other initiatives and projects emanating from our various expert working groups and committees. Materials produced through these sources were referred to and associated

with to ensure the development of the Teaching, Learning and Assessment strategy represented our continued pathway to educational excellence for all. These reference sources are summarised below:

Supporting associated with the Development of the Teaching, Learning and Assessment Strategy

- CCT College Dublin Strategic Plan 2021-2023
- Student Success Strategy
- Implementing a Research Strategy at CCT College Dublin 2019 - 2024
- Centre for Teaching and Learning (projects, initiatives, annual reports, CTL Forum activity)
- Student Mentoring Academy (feedback and reports)

2. Strategic Teaching, Learning and Assessment Goals

We have identified five strategic goals which embody the vision within the numerous strategic layers of our institution, from operational, tactical to strategic. The goals incorporate activities that span the entire institution, and while building on our existing expertise, we have put forward new target initiatives to ensure we continually develop to provide a rich, engaging, warm and purposeful learning environment for both our staff and students, and one in which we further engage with the Higher Education sector nationally, and internationally.

Strategic Goal 1: Developing Knowledge, Skills, and Competencies

Continue to develop QQI accredited programmes (major, minor, special purpose and microcredential awards) that span levels 6 to 9 on the National Framework of Qualifications (NFQ). We recently developed (December 2020) an NFQ Level 9 Master of Science in Data Analytics programme and an NFQ Level 9 Master of Arts in International Business (April 2021) programme reflecting demand from our student body to further enhance and develop their employability in these two disciplines. Upon acquiring QQI validation, we plan to commence the MSc in Data Analytics in September 2021 and the MA in International Business in February 2022. In addition, CCT recently developed a series of micro-credential programmes (NFQ Level 6 to 9) to respond to national calls for short skill-focused programmes for a professional audience, this endeavour will continue into 2022 and beyond. This programme development commitment ensures our graduates are exposed to the latest discipline specific opportunities and challenges giving them the best possible opportunity to have a positive impact in the modern workplace.

The points below represent key inclusions in all future programme development initiatives:

- Programme learning outcomes are practical and focused on enabling students to develop knowledge, skills and competencies in their discipline of choice.
- Programmes will embed a focus on social responsibility, ethical behaviour, and mutual respect.
- Programmes assessment strategies will be clear, easy to understand while reflecting best practice, and allow for flexibility of approach dependent on cohort needs (See Appendix 2: Assessment Of/For/As Learning).
- A wide range of assessment methods will be considered to reflect the variety of learning outcomes with consideration for the development of both technical and transversal skills.
- Reasonable accommodation and universal design for assessment is part of our assessment approach with respect to diversity and inclusion.
- Programme boards and programme teams across our faculties will work together to ensure our core focus of student-centred learning is preserved.
- Cross-institute and interdisciplinary activities are further encouraged and supported through programme boards, faculty meetings and student representative led initiatives.

- Students are encouraged and supported to become independent learners, encouraged to reflect and interact and debate with their peers, and develop an entrepreneurial mindset.
- Learning to learn is a key approach to student learning and provision for such will be strongly provided in all programme development initiatives.
- Programme development will consider the provision of work-based learning and investigate ways in which this can be achieved on and off-campus, i.e. Authentic Assessment.
- Consideration for the mode of delivery will be purposefully included in all programme design initiatives to ensure equal opportunity of experience for the learner. Technology enhanced learning will be carefully considered to safeguard the provision of a dynamic and flexible learning experience on and off campus.

Strategic Goal 2: Enhancing the Learning Environment

Building on our existing enhancements to both the physical and virtual learning environment, we will continue to enhance our existing technology enabled and active learning spaces. The learning environment goes beyond the technical and physical aspects, and therefore consideration is required to further encourage our learners to engage in an inclusive environment furthering social interaction, dialogue, interaction, collaboration, and academic debate. The Centre for Teaching and Learning will play a critical role in the achievement of the goals summarised below, outlining how we will continue to develop and nurture our learning environment throughout this strategic cycle.

- The class size will be in proportion to the learning strategy e.g., class size varies to allow for lectures, active learning, small group activities, workshops, and seminars.
- Learning will focus on the student experience and the practical application of learning; we will endeavour to provide learning experiences that allow for the transfer of theory to practice.
- Collaborative learning, group and teamwork are key to social development, and social interaction will be facilitated both in and outside the classroom and through our virtual learning spaces and learning communities.
- Feedback on learning is crucial for engagement and progression. Formative feedback will be provided to students as they progress through a course of study both through non-graded and graded activities. A variety of feedback mechanisms will be utilised to ensure feedback is provided in an efficient and timely manner for all students.
- Assessment will be fair, consistent, and appropriate to learning outcomes. Assessment will be diverse and suitably challenging to encourage independent and autonomous learning.
- The ongoing development of the curriculum, teaching, learning and assessment strategies will reflect best practice and will be further supported through continuing staff development initiatives.
- We will Further promote and strengthen equality and inclusion to facilitate enhanced access and accommodation for all in an inclusive learning environment. In doing so we will further develop partnerships with state funded social enterprises such as AHEAD and Not So

Different, as a means of facilitating equality and inclusion for people with disabilities and/or who are neurodiverse, such as those on Autism Spectrum.

- Through our Student Success Strategy, we will identify data enabled student-centred learning needs to help ensure students receive tailored supports and interventions while developing their criticality, self-efficacy, technical and transversal skills for the future workplace.
- We will introduce more innovative technologies virtually, including AI and VR platforms along with virtual labs to complement the on-campus environment.
- We will designate an innovation and technology learning space within the campus building. This physical learning space will host several selected cutting-edge technologies to facilitate creativity and innovation and will be informed by industry to ensure learners are creating positive links between their studies and the real world.
- We will expand on our existing e-learning studios within the college to further develop our capacity for online learning, development of online lessons as well as live streaming of content.
- We will continue to expand the number of student support staff in line with an expanding service, such as technical support staff to facilitate student technical problems typically experienced with local software installation and configuration.
- We will continue with our physical and virtual 'open-door policy' to facilitate positive and welcoming staff and student interaction, and further investigate ways in which this can be maintained as the college expands on its provision.
- We will further strengthen and increase access to extra-curricular student success initiatives to promote and facilitate academic integrity, academic success and professional success driven by our Student Success Strategy.

Strategic Goal 3: Cultivating a Lifelong Learning Culture

Building on our existing commitment to promote lifelong learning, we will enhance this embedded culture by continuing to review barriers to education and explore how to attract participation and make provision fairer and more open. We need to further encourage lifelong learning to support a sustainable and inclusive environment that everyone, regardless of gender, age, background or circumstances can access learning that best fits their needs from a future-oriented perspective. We will continue to examine our formal, non-formal and informal learning pathways to education and encourage our students to learn, to update their knowledge or skills, to adapt to an ever-changing world, or simply for the joy of learning to satisfy curiosity. The goals outlined below are also inspired by the transdisciplinary UNESCO (2020) report 'Embracing a culture of lifelong learning: contributions to the Futures of Education:

- Students will be encouraged and supported to develop the skills of independent learning and a sense of responsibility for their present and future learning. Learner autonomy is the foundation of our lifelong learning culture. Learning to learn is a basic competence, allowing learners to be active agents rather than passive recipients of prescribed knowledge.

- Students are prepared for work through evolving practical teaching, learning and assessment strategies furthering their employability upon graduation.
- Programmes will be designed to include teaching, learning and assessment elements to bring about a sense of entrepreneurship and creativity in students.
- Students are given the opportunity to experience technology enhanced learning environments which encourage and promote self-study.
- We will continue to build on and develop a learning culture focusing on flexibility of learning in which learners can choose bespoke learning pathways to learn at different levels and at a pace and time that suits them best.
- Students are enabled to be active citizens working in the global economy and society, and this will be supported through community-based activities, debate and peer dialogue.
- We will build on our Student Mentoring Academy to encourage further participation across our faculties, enhancing the learning experience for the both the mentors and the mentees, cementing the importance of learning from one another throughout their time at college.
- Through the development of our learning analytics system, we will provide a mechanism for students to reflect on their current skills and abilities to identify potential gaps in learning to further encourage continued learning and the importance of the development of a lifelong learning mindset.
- We will continue to collaborate with partners across further and higher education, and within industry, to develop and support progression pathways and opportunities of relevance to CCT Programmes.
- We will increase access opportunities to CCT programmes using non-traditional routes such as RPL, RPEL, foundational programmes, bootcamp induction courses, bridging and taster programmes, along with collaborations with Further Education providers. All of which brings the lifelong learning concept to life, ensuring learners can see contextualised pathways for learning and progression.

Strategic Goal 4: Steps to Student Partnership in Decision Making

Building on our existing relationship with our students through our successful class representation system, we aim to strengthen our partnership with students in decision-making opportunities. In line with the National Student Engagement Programme (NStEP), we see engagement in decision-making as the development of steps towards partnership between students and staff in a way that ensures that partnership is sustained. Our partnership goals are aligned with that provided by NStEP to ensure CCT is following a framework employed across the higher education sector that reflects best practice for information sharing, development, and growth. A summary of our goals for this strategic period our outlined below.

- Increase and enhance student partnership opportunities and initiatives to further expand on CCT's culture of change through collaboration, reciprocity and shared responsibility between students and staff.

- Student representation and organisation will be further encouraged through student-to-student engagement facilitation. The ability of all students to participate in democratic processes and elect their own representatives, coupled with the ability of students to self-organise, debate and discuss, to develop student-led opportunities, and to support one another throughout their learning journey, is core to enhancing capabilities to become change agents.
- Encourage and facilitate students to become co-creators in pragmatic initiatives to support learners and learning across the institution. This process allows for a mutual understanding of fears, misconceptions, hopes, and aspirations driving a creative process where all partners are considered experts within the learning community.
- Maximise opportunities to capture lived experiences of students expressed through opinions and ideas, demonstrated by formal and informal conversation, debate, and feedback, to inform and enhance CCT programmes, service, culture and practice.
- Continue to support and expand opportunities for students as partners in CCT's governance and decision-making. Empowerment in decision-making, both individually and collectively, is required for both students and staff to realise the full potential of partnership with one another.

Strategic Goal 5: Enhancing Scholarly Activity and Evidenced Based Research

As we continue to develop institutionally, we understand the importance of expanding on our research culture fostered through institutional staff development and supports as well as a commitment to recruiting high quality staff with a strong record of research performance. This is also reflected in our overarching research plan, 'Implementing a Research Strategy at CCT College Dublin 2019 - 2024', which represents another stage in the evolution of this research culture, formalising processes and supports already in existence and augmenting these with proposed enhancements, informed by developments in the broader research environment and the strategic aspirations of the college. To fulfil the aspirations of the development of our research culture, we will endeavour to fulfil the goals outlined below.

- We will continue our commitment to ensuring appropriate access to library resources and personnel, education consultants and in-house expertise as well as the regular dissemination of user-friendly research resources, are accessible and available for all.
- We will continue to promote knowledge development and knowledge enhancement activities requiring faculty to utilise existing research to ensure their practice and curriculum is research informed.
- The Centre for Teaching and Learning will continue to provide sessions to faculty and students to develop and enhance their research, scholarship, and innovation activity. This will be achieved through our continued development of masterclasses, learning lunch seminars and workshops.
- We will continue to promote an ethos and culture of research with a particular focus on pathways to publication for the various capstone projects across our business and IT faculties.

- We will organise an annual institutional research day incorporating faculty presentations and a student poster exhibition.
- We will strengthen the link between research and teaching and encourage those not familiar with conducting research projects to engage in small scale evidenced based research studies to demonstrate a commitment to professional teaching practice.
- We will continue to highlight the importance of institutional research ethics approval procedures and the importance of academic integrity.

End of Strategy

Appendix 1: Supporting Research for the TL&A Strategy

A. Learning for Success

The previous strategy (2015 to 2020) focused on developing a culture of student-centred learning and now we are in a stronger position through experience to continue this development theme. CCT College Dublin is aware of the support required for students in progressing into, and through, the higher education system, developed through a range of initiatives, including the National Plan for Equity of Access to Higher Education 2015-2019, and the National Forum for the Enhancement of Teaching and Learning (Higher Education Authority, 2016). Kuh (2009) makes the point that institutions cannot change who students are when they start college but colleges can identify areas where improvements in teaching and learning will increase the chances that their students attain their educational and personal goals. Specific teaching approaches can encourage confidence development and peer communication, such as Problem Based Learning. Research shows that interactive peer activities have a special role in building students' self-confidence and they can reduce the gap between quicker and slower learners (Fuszard, 2001). We plan to continue to develop programmes that foster a culture of active learning, independent enquiry and critical thinking amongst students from the beginning of their studies. A student-centred approach to programme development will be embedded into all programme development and re-validation activities, as well as to develop the learners' autonomy to pursue lifelong learning.

B. Student Engagement and Self-Efficacy Development

At the heart of our learning strategy is student engagement, whereby engagement can be described as students who are involved in educationally purposeful activities. Engaged students develop habits of the mind and heart that enlarge their capacity for continuous learning and personal development (Shulman, 2002). Faculty members also play a key role in student engagement as they make concrete links between what students are reading and discussing and engage with other aspects of their lives, such as their job setting and family or peer relations, and design assignments and examinations that require students to demonstrate how to use what they are learning in other settings (Kuh et. al., 1994). Also important to student learning are institutional environments that are perceived by students as inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels (Kuh,

2001; Pascarella, 2001). In addition to the role of the environment plays in engaging students, peers substantially influence how students spend their time and the meaning they make of their experiences including their personal satisfaction with college (Astin, 1993; Pascarella and Terenzini, 1991).

Reflection is also another important process for both teacher and learner. Paulo Freire's (1972) concept of critical consciousness is based on the richest learning begins with action, which is then shaped by reflection, in which this reflective process gives rise to further action. Students through reflection are encouraged to look back on what they have already done (Jordan et al., 2008), in this way, associations can be made between new material arriving bottom-up from the environment and top-down material already stored in memory. Teachers are a key component in the reflective learning process and ideally teachers should design material that stimulates learners' cognitive processes and encourage learners to make mental connections for themselves. Reflection encourages teachers to see the problem through the learners' eyes, which is helpful in designing appropriate learning experiences (Jordan et al, 2008).

To engage students and to encourage reflection, we need to consider the development and enhancement of self-efficacy. Those who believe they are capable of producing desired results through their own actions are more likely to engage in purposeful educational activities (Bandura, 1986). According to Bandura, people with a high sense of self-efficacy approach difficult tasks as challenges to be met, rather than threats to be avoided. They also set challenging goals for themselves, and they maintain a strong commitment to achieving them. When faced with a setback, they quickly recover their confidence and simply redouble their efforts. Bandura states that this type of outlook leads to personal successes while reducing stress and decreasing the risk of depression. In contrast, people with a low sense of self-efficacy avoid difficult tasks, which they view as personal threats. They rarely push themselves to excel, and they have a weak commitment to any goals they to decide to pursue. When faced with an obstacle, they dwell on their personal weaknesses and the potential for failure rather than looking for solutions. If a setback occurs, they are quick to give up and slow to recover their confidence afterward. It takes relatively little for such individuals to lose faith in themselves. This is an important consideration in terms of how we approach teaching, learning and assessment, and encourage those with low self-efficacy to participate.

Bandura (1986) has outlined three ways in which a strong sense of self-efficacy can be developed. The first and most effective way is through mastery experiences. Simply put, past

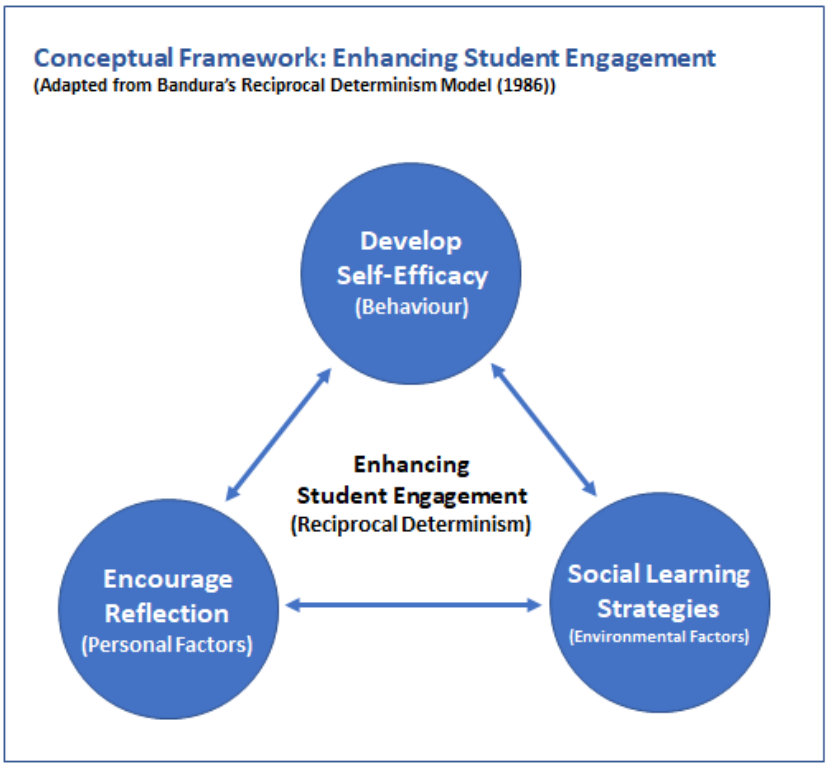
success strengthen the belief that future success is possible, while past failures undermine it. After students become convinced they have what it takes to succeed, they are more likely to stick with their goals, even when problems arise.

A second way to build strong self-efficacy beliefs is through vicarious experience; in other words, by watching other people perform the behaviour. The impact of modelling on perceived self-efficacy depends largely on how much the observer sees him/her as being like the model. The more similar the model and observer, the greater the effect. When people watch someone similar to themselves accomplish a task through sustained effort, they are more likely to believe that they can do it, too.

A third way to install self-efficacy beliefs is by social persuasion; that is, by telling people that they can be successful. People who are persuaded by others that they have what it takes to succeed are likely to try harder and to be more persistent than those who hold self-doubts. We believe the implementation, and further development, of our Student Mentoring Programme will facilitate the development of self-efficacy.

Figure 3 below represents our conceptual framework for enhancing student engagement through the encouragement of reflecting on learning, social learning and the development of self-efficacy.

Figure 3: Conceptual Framework: Enhancing Student Engagement (Glanville, 2020)



C. Student Diversity and Conceptions of Learning

The importance of student diversity within higher education is well reported and research outlines several benefits including enriched educational experiences, personal growth by challenging stereotypes, development of critical thinking, effective communication skill development with people of varied backgrounds and fostering mutual respect through group and teamwork (Hardy & Tolhurst, 2014; Tienda, 2013; Turner, 2013). Diversity also enables the student to perceive differences both within groups and between groups (Gurin et al, 2002). Studies conducted by Gurin between 1985 and 1989 and between 1990 and 1994, involving 12,500 students from 189 institutions, found that students who had the opportunity to interact with peers from diverse backgrounds, both informally as well as inside the classroom, showed the greatest engagement in active thinking and growth in intellectual and academic skills (Gurin, 1999; Gurin et al., 2002). The accrual of these benefits, however, is contingent upon students' willingness to participate both inside and outside the classroom through the various forums, groups and projects that are formally and informally established.

Regarding international students and learning it is important to consider the different preconceived views that learners may have of what learning means (Marshall et al., 1999). It may be assumed that learning is a well-defined standard experience for all learners but the

experience of learning across cultures has challenged this notion indicating that students' conceptions of learning differ (Jones, 2008). Tsai (2009) states that conceptions of learning profoundly impact learning outcomes. These conceptions of learning have been defined as logical systems of knowledge and beliefs about learning and all previous experiences related to learning (Marshall et al., 1999; Vermunt & Vermetten, 2004). Cano & Cardelle-Elawar (2004) refer to learning conceptions as individual constructions that develop from knowledge and experience, and these experiences influence how learning is understood. This can be viewed as how learners individually think about learning activities, strategies, tasks and processes (Vermunt and Vermetten, 2004), which can influence how students interact within the classroom environment and with peers (Marshall et al., 1999). Lin and Tsai (2008) state that students with multiple conceptions of learning use higher levels of cognitive learning strategies, such as self-monitoring, which enables them to be more academically successful.

From a teaching perspective, research highlights the importance of developing an understanding of students' conceptions of learning as this can facilitate the design and development of better teaching and instructional environments (Burnett et al., 2003; Chin & Brown, 2000; Tsai, 2009). This is not a new consideration as outlined by Hofstede (1986) emphasising the importance that all teachers at all levels of education need to be trained to become intellectually and emotionally accustomed to the fact that others in societies learn differently. This is more important than ever as learning environments have become culturally diverse teachers need to be able to effectively develop culturally inclusive teaching approaches. Murray and McConachy (2018) refer to lecturers as cultural mediators who can invoke cultural references from case studies from students' own countries and draw information from students themselves. Having such a diverse study body brings many advantages for all concerned as this brings a diversity of experiences and perspectives that makes teaching a more stimulating and informative process increasing creativity, innovation, and problem-solving (Murray & McConachy, 2018; Fine & Handelsman, 2010).

Another important student characteristic to consider is age and the majority of learners within the institution can be described as 'mature-age' which generally refers to ages 22-23 and up. Mature-age learners can also be identified as those that have completed their second-level education more than one year before beginning their undergraduate degree programme. In comparison, direct entry refers to students who have entered their undergraduate programme from second-level education. These cohorts have been formally referred to as 'non-traditional' and 'traditional' (Griffiths, 2011; McCune, Hounsell, Christie, Cree & Tett, 2011). This non-

traditional age category is generally viewed as an important target demographic for higher education expansion due to increased market demand for increased and diversified skills which are very typical of the ever changing and fast paced computing landscape. Several studies have attempted to identify the barriers that mature-age learners face when transitioning to higher education. These include educational factors, described by Burton et al. (2011) as, a lack of preparedness for learning in higher education, or a long break in study resulting in undeveloped approaches to learning (Hardin, 2008). Mallman & Lee (2016) point out that mature-age learners are not necessarily the already-competent learners that institutions, teachers, and fellow peers assume they are. Leathwood & O'Connell (2003) state their educational pathways are often disjointed and, in some cases, non-linear pathways. Reay (2003) suggests that mature learner past failures can be an indication of their educational potential outcomes, supported by Cantwell and Grayson (2002) in which they suggest the impact of prior experiences of educational failure can have a negative impact on perception of self as a learner and that different types of learning within an institution can bring about the notion of personal inadequacy. Situational barriers can also negatively impact the transitional experience, such as the management of personal and professional responsibilities (Finnegan et al., 2014). Many mature-age learners already fulfil multiple roles when they return to higher education and acquiring the student role can add an additional burden (Stone, 2008; Cullity, 2006) and a role they have difficulty inhabiting (O'Donnell & Tobbell, 2007). Psychological barriers may also be prevalent in the mature-age learner, such as poor self-confidence (Merrill, 2012) and anxiety (Hardin, 2012). Crossan et al. (2003) also refer to mature-age learners' complicated engagement with the learning environment due to their age and differing life circumstances, and perceived age in relation to others can affect learning dynamics in and outside of the classroom (Brooks, 2005; O'Boyle, 2014). Reay (2002) suggests mature-age students grapple with feelings that their age disqualifies them as full legitimate members of a learning community, or even as 'imposters' (Reay 2002). While these age related factors are useful for reflection and planning purposes, caution is required as categorisation can eliminate other factors underpinning them, such as gender, culture and diverse experience which can form a bigger picture of an individual student (Jones, 1995, Bowl, 2001).

With regard to student identity and peer interaction, Christie et al. (2008) state that many mature students experience fragile identities as learners through challenging experiences relating to learning environments, supported by O'Shea (2013) who refers to the challenges of participation and identify formation. The creation of student identity and the ability to engage in the learning

environment are important for academic success, and research shows that peer interaction and social integration in higher education are closely linked to student retention, progression and performance (Stuart, 2006). Christie, et al. (2005) state that there has been poor consideration in higher education research of the emotional dynamics of inhabiting a new learner identity amongst other students, which is especially vital for understanding the first-year transition (Christie 2009). Lave and Wenger's (1998) social theory of learning suggests people first learn as peripheral participants and move eventually toward a legitimate and full participation. For international learners who are away from their families, the importance of social support is underscored as these students rely on local relationships to understand and navigate the higher education system and environment (Wilcox et al., 2005). Gallacher et al. (2002) also note that mature adult learners may not necessarily engage as much in the social supports within institutions because of pre-existing social networks negating the need to engage in the development of a new social network. However, it is important to note that many mature-age learners engage with their courses with enthusiasm and determination to succeed, and Howard (2002) reported that mature students tend to have a higher level of classroom participation than younger students. Reay et al. (2009) described this determination as a sense of resilience that arises from students' internal conversations (Archer 2003, Hammersley & Treseder 2007) as well as from their conversations with others such as family and friends about how to balance their ambitions with the conflicting demands on them from employment and self (Youdell, 2012).

This assessment of diversity further strengthens the need to consider methods of engagement and supports required for mature-age international learners, and Finnegan and Merrill (2017) suggest institutions need to continual evaluate and align their existing culture to meet the needs of all students.

D. Faculty Development and Pedagogical Innovation

We believe in the continued active professional and academic development of faculty members, as evidence shows that education quality improves when teachers are supported (UNESCO, 2014). CCT encourages teacher leadership, which can be defined as teachers focusing on roles beyond the classroom, supporting the professional learning of peers, influencing policy/decision making, and ultimately targeting student learning (Wenner & Campbell, 2017). A study commissioned by Educational International has established a link between teacher self-efficacy

and teacher leadership, and sets out proposals for a systemic approach to teacher leadership (Bangs & Frost, 2015). By initiating improvement and innovation at CCT College Dublin, teacher leadership develops teachers' competence and confidence as educators and promotes change, improvement, collaboration and collegiality. This collective collaboration leads to organisational reflection, which Reynolds & Vince (2016) describe as, a socially situated, relational, political and collective process, which further enhances all of our programmatic activity. We also need an improved understanding of how students learn, and the changing technologies used to support and drive learning. Part of this process is faculty continuous professional development, with ongoing engagement with new approaches to teaching and learning.

E. Collaborative Learning and Group Work

This section will discuss collaborative learning from the perspective that accountability does not exist between students as they engage in an informal learning process and there is no specific target to be met, and group and teamwork from the perspective of individual accountability and responsibility in undertaking a group task or project with a measurable outcome.

Educationalists argue that passive lectures can fail to engage students (Brown, 2001; Harden, 2012), while active learning approaches, such as collaborative learning, can bring about richer engagement in the classroom. Collaborative learning approaches are purposefully designed to encourage knowledge sharing and knowledge development with the additional benefits of academic achievement, enhanced motivation, and the development of social skills (Johnson & Johnson, 1989; Huang et al., 2011). Lubell and Vetter (2006) suggest that learners who are meaningfully integrated with their peers are more likely to be protected against early drop-out, which is relevant to the participants within this study as they are entering their second semester of first year.

Tinto (1997) stresses the importance of students' involvement in academic and social groups, including learning circles both within and outside of the institution. These learning groups positively correlate with persistence and completion, and through social interaction with peers, student identity can be formed (Hilman, 2005). Baxter & Britton (2001, p.94) describe this process of identify formation through social interaction as a 'conscious reshaping of the self'. Dirkx (1997) refers to this as a transformative learning process whereby the learner builds new meaning constructs to make sense of their changing world. This process requires the learner to broaden their perspectives and to engage in the values and beliefs of others, though different

from their own, are equally valid (Taylor, 2000). Cranton (2006) warns that personal change can itself bring about a degree of uncertainty as students attempt to maintain assumptions and worldviews that provide safety which can be exposed or challenged within a learning community. As previously stated, this process can raise psychological barriers for the student such as self-confidence (Merrill, 2012) and anxiety (Hardin, 2008) as they navigate the many academic and social dimensions of higher education. Cranton (2006) suggests that a better social transitioning experience can be achieved through the creation of a learning community, that Tinto (1997) describes as an establishment that provides shared knowledge and shared knowing. Shared knowledge can be achieved through the construction of an educational experience that allows for students to share connected knowledge, while shared knowing relates to not only how students interact and know each other, but also how they come to share the experience of learning.

The institution is primarily focused on implementing social learning through peer learning approaches such as Problem Based Learning (PBL) and Peer Assisted Learning (PAL). PBL falls into the category of Group Work as there are defined roles and responsibilities for each individual member, whereas PAL can be considered as Collaborative Learning as each member is not necessarily accountable as no specific project goal or target has to be met. Implementing collaborative learning with a large student cohort creates an obvious challenge for the teacher, but there are ways of incorporating some facets of small group teaching into the large group setting, some examples include breakout groups, pair and share, games and quizzes (Steinart & Snell, 1999; Edmunds & Brown, 2010). Jordan et al. (2008) suggest that in order to promote positive peer group integration and cohesion, teachers should use small-group learning that encourages less confident students to participate, and to develop strategies to stimulate healthy group competition in learning with consideration for the composition of groups in terms of culture, gender and/or ability.

The importance of group work within higher education correlates with market demand, and particularly within the computing industry where the majority of graduate roles require an ability to work effectively in a team. These work teams are formed to create or service products which go through rapid development and as such, teams are disbanded regularly, and new teams formed to address new development initiatives. Employers seek employees who can work effectively within a team environment (Tarricone & Luca, 2002) and Cotton (2001) points to this as early as 2001 and states that it is widely accepted that developing subject-specific technical skills is no longer sufficient for developing students' employability. Group work

practiced in the classroom (or virtually online) creates opportunities to acquire the basic collaborative skills required before graduating (Chowdhury et al., 2002). This demand from industry highlights the need for higher education institutions to develop students' group and team skills (Graen et al., 2006) and has led to terms such as group-based learning in higher education curricula (Chapman et al., 2006). Students themselves also recognise the importance of acquiring group work skills as highlighted in a study by Hodge & Lear (2011) where international students rated group work as the most important skill out of a list of 15 skills. Within the same report, faculty members ranked group work skills in fourth place after interpersonal skills, critical thinking and problem solving. Similarly, Kavanagh and Drennan (2008) revealed that students acknowledged employers' expectations of strong communication, analytical, professional and teamwork skills.

A number of studies have identified learner group composition as a fundamental issue and research has shown that different grouping criteria for small groups affects learning performance and social behaviours of grouped members (Hooper & Hannafin, 1988; Lin, Huang & Cheng, 2010; Webb, 1982). Johnson & Johnson (1999) suggest that diverse group composition enhances elaborative thinking which brings about a deeper subject matter understanding, enhances reasoning abilities and long-term retention. Webb & Palinscar (1996) further support diversity in group composition by members' gender, ability, and race in which they suggest positive collaborative learning. Jehn et al. (1999) suggest that diversity based on age and gender positively affect morale, satisfaction, commitment, and perceived performance. However, Milliken and Martins (1996) argue that diversity in groups such as race/ethnic background, gender and age prevent smooth group integration and can be disruptive to teamwork processes. Robbins and Fredendall (2001) found that homogeneity is positively related to team success and motivation. Maznevski (1994) concludes that diverse groups perform less well than homogenous ones do, although the disadvantage of diversity can be moderated through better communication.

With regard to gender diversity in groups, Johnson and Smith (1997) found female students were rated higher than males on traits such as effort, cooperation and initiative. Johnson and Smith (1997) suggest that these are desirable behaviour traits for group cohesiveness that contribute to success. Warrington et al.'s (2000) study suggests female students have higher communication skills compared to male students whereby male students are less inclined to engage in cooperative discussion and unwilling to collaborate to learn, although some studies suggest that female students participate less often than males (Crawford & MacLeod, 1990;

Fassinger, 1995) while other studies did not find any significance regarding gender participation in group work (Howard, 2002). Bernard (1997) discovered that males found it difficult to cooperate in groups and that an all-male environment tends to compound the least attractive aspects of male attitudes and behaviour, including lack of cooperative elements in male traits.

Orlitzky and Benjamin's (2003) survey of 138 students revealed that mixed-gender groups outperformed more homogeneous groups and similarly, Wood's (1987) meta-analytic review suggests a tendency for mixed-gender groups to outperform same-gender groups. In a study conducted by Takeda and Homberg (2014) on the effects of gender on group work process and achievement, they implemented a self and peer-assessment method on 1001 students formed into 192 groups. Their results suggest that students in gender balanced groups display enhanced collaboration in group work processes due to reduced social-loafing behaviours and more equitable contributions to group work, however, the results did not lead to higher student performance. On further analysis, Carli (2001) found that in gender diverse groups, male members exercised a stronger influence than female members and that contributions made by male members received more attention from other group members than contributions offered by female members of the group. This would suggest that female students have a better experience of the group work process with peer female students than with male students.

With regard to minority gender groups, Sormunen-Jones et al. (2000) define these groups as 'gender exception groups' whereby all members are one gender except one of the opposite gender. They found that gender exception groups achieved lower scores in group writing projects in content, organisation and style and in the total achievement score when compared to same gender or mixed gender groups. A study by Craig & Sherif (1986) found in their group composition study that males exerted a larger amount of influence over other members and groups' decisions when they were in a minority of one in a group. Carli's (2001) meta-analysis study supports these findings. Thus, previous studies suggest that males create a more influential position in gender exception groups and females are disadvantaged in gender exception groups making this group formation less equitable. When evaluating gender balance in groups caution is required as it may oversimplify and miss nuanced detail (Young, 1994; Knaak, 2004) as gender can be considered as both a personal and cultural construction (Chodorow, 1995).

Culture can also impact group cohesion and progression. Within a group project the lack of understanding of culture can increase the students' perceived difficulties of group work, particularly when the norms of behaviour, communication and decision-making are not agreed

across all members (Shaw et al., 2015). International students may have a wide variety of learning experiences that are very diverse across a cohort (Shaw et al, 2007). Furthermore, some studies have highlighted that students' difficulties in understanding the pedagogies they encounter are worse if teachers have not taught outside their own national context, making it more difficult for them to see their own society from an outsider's perspective (Haigh 2002; Baker and Clark 2010). This diversity of experience and perception of culture and group work needs be considered when forming groups, and perhaps a layered and scaffolded approach to group formation is more appropriate in establishing agreed group norms. Although outdated, the Delors Commission (1998) warned that Western education systems could potentially create problems by bringing people from different groups together in a context of competitive stress, which can be observed when the initial mention of group work is being announced to a cohort. This further underpins the need for careful consideration when forming groups, and to consider questioning the value of assessed and non-assessed group work.

Sweeney et al. (2008) observe that despite extensive literature, the benefits of multicultural group work on performance and in the development of group work skills were unclear. Their study, involving international and domestic students, did confirm that group work facilitates the development of interpersonal skills, cross-cultural collaboration, but that this link was conditional on students being prepared for multicultural group work, and on being coached during and debriefed after. This is also reinforced by Schullery and Schullery (2006) from their survey of research findings on diversity in membership of learning groups that there is no straightforward answer to whether mixed groups are an advantage. This is also supported by Sweeney et al. (2008) whereby positive aspects of multicultural group work were recorded, but difficult to suggest that group work is better than individual work when it comes to actual performance. Measuring engagement and participation in group work can be challenging and is not a new one, for example Goffman (1959) states that participation in and of itself positions students as good or competent while a lack of participation can label them as disengaged or disinterested. Cheng (2000) cautions against this labelling as non-participation may be a product of cultural discomfort with unfamiliar teaching methodologies and approaches or weak language skills (Tsui, 1996) rather than a lack of capability or engagement. In addition, students from collectivist cultures may feel reluctant to speak up in front of their peers or to be seen to take the initiative within a group setting. These behaviours may be considered by their peers as being indirect and quiet during group work (Gundykunst & Lee, 2003) which may result in them being disadvantaged because of the negative perceptions their behaviours induce. It is therefore

important for lecturers to consider the cultural context nature of participation when evaluating student performance in addition to underscoring the importance of influencing students to examine the perceptions of their peer's performance based on these cultural norms.

Irrespective of status as international or domestic, students may be apprehensive of classroom participation activities and several studies have discovered that both home and overseas students can feel frustrated and angry when they are placed in mixed-culture groups (Volet & Ang, 2012; Murray & McConachy, 2018). This has implications for both students and lecturers who may need to act as mediators in group work disputes (Murray & McConachy, 2018). For example, home students have the expectation of participation based on their cultural norms and failure to observe those behaviours in their overseas peers can lead to resentment particularly when they feel they have to shoulder the greater proportion of the work in a group based project. This is compounded when group work is assessed without individual performance as home students often feel they have no choice but to lead on tasks and take on the greater body of work to ensure their grades do not suffer. However, Murray & McConachy (2018) state that overseas students can feel that their contributions are not recognised in group work as they are not given sufficient opportunity to contribute to group tasks. Examining this further, some of the reasons underpinning the negative perceptions of group work include the structural constraints which can be intimidating for students (Fassinger, 1996; Fassinger & Howard et al., 2002), insufficient preparation on the part of the students (Tinto, 1997; Ethington, 2000) and language competence (Arkoudis & Kelly, 2016; Li, 2012). These issues can also arise where group work is continued outside of the classroom, such as the preparation of a group project or group presentation.

Chowdhury et al. (2002) state that students' attitudes toward group work differ and depend on their self-efficacy, which results in higher or lower individual satisfaction and individual performances on the group engagement level. McCorkle et al. (1999) claim that although students are aware that group work is important some students still preferred to work alone if the main goal is strong performance, although Landy (1989) states that a particular group member may be satisfied with the group environment despite a weaker group performance. Falls et al. (2014) concluded that students' perception of group work is influenced by personal factors and that this perception affects student performance as group members. Peslak (2005) examined the emotions of students who participated in a long-term group project and found that team emotions at the start of the project were more positive than negative, negative emotions prevailed over time though. Terveen & McDonald (2005) suggest that making students work in groups can imply unequal participation and therefore an unfair share of responsibilities and a

similar finding was obtained in a study on students' attitudes towards group work conducted by Gottschall and García-Bayonas (2008). These authors found social loafing as the major perceived risk of group work. Social loafing is cited as one of the main causes of group failure, where social loafing can be described as group members failing to contribute to the group project, but benefit from others and acquire the same rewards as other members of the group. McCorkle et al. (1999) reported that 65% of students identify social loafing as a problem they experienced when undertaking group work and when group work is suggested in class it is the social loafing aspect that affects students' attitudes towards engaging in a group project (Pfaff & Huddleston, 2003; Stark et al., 2007).

There are a number of strategies that can be introduced to reduce the effects of social loafing and many teachers recommend peer-assessment (Cheng & Warren, 2000; Baker, 2008). Other empirical studies have evaluated its benefit (Chapman & van Auken, 2001; Pfaff & Huddleston, 2003) and it is a proven method in not only non-group related activity but also group projects as pointed out by Brooks and Ammons (2003) where they note a reduction in social loafing through the use of peer evaluations as both summative and formative assessment in group projects. Feichtner and Davis (1984) report that three out of five students have the best group experience when peer-evaluation is included in the grading system, as compared to one out of three when peer-assessment is not utilised. Peer and self-assessment are approaches that can be considered to allow peers to reflect on individual performance while considering the performance of their peers. The ability to reflect encourages qualities that assist in the development of professional development and lifelong learning skills (Boud et al., 1999; Boud, 2001; Nicol & Macfarlane-Dick, 2006) and Nicol (2010) also states that the ability to evaluate one's peers is an attribute many employers seek in new graduates.

Henneman et al., (1995) suggest appropriate collaboration between group members requires competence, commitment, respect, and trust between all group members, which suggests that early stage implementation strategies may not yield positive results as building respect and trust, for example, take time. Collaborative learning approaches, such as Peer Assisted Learning, may be more suitable to initially allow participants to engage in a learning process and build efficacy, while getting to know each other without the unnecessary burden of performance measurement. These interactions may facilitate the more formal introduction of group work whereby formal roles and responsibilities and performance measurements can be introduced. Referring to institution, it may be worth considering non-assessed group work to initially allow interaction and communication without adding in the unnecessary component of assessment stress, together

with building in reflection as a way for students to examine their social learning experiences. Implementing group work for the first time comes with risks as no prior base experience for students' working with their peers exist. Cattani (2013) found that group members are more effective if they have been the successors of a previous common working experience suggesting efficacy is built upon positive group-based experiences and outcomes.

The teacher naturally plays a critical role in role in successful group work management through a coaching process (Bolton, 1999). This process involves offering students suggestions, observations and insights as work is carried out, and helping teams manage diversity and conflict and mediation where there is hostility. The teaching and learning methods students experience and the meaning they make of it within their educational setting is the result of an intrinsically intersubjective sense making process (Salvatore and Pagano, 2005). This intersubjective relationship is a dynamic one, and if a student begins to identify with other peers within a group who are performing at a higher level, or are highly engaged, then self-identity could potentially change creating expectancies that will affect overt behaviour. To ensure group interaction and cohesion, teachers should consider the importance of defining roles and responsibilities within a group task or project as this may help to mitigate negative group experiences. This places importance on regular teacher engagement with the group to evaluate goals and objectives of an on-going project. Goold et al. (2006) revealed that 15% of students did not like group work because of communication difficulties which usually escalates as group members leave participation and submission too close to due dates. Ruiz Ulloa and Adams (2004) found that students developed positive individual attitudes toward group work if the environment determinants, such as professional communication, interdependence, defined roles, and goals, were present during group work sessions.

Accepting the known challenges of introducing collaborative learning and group work, the possible benefits to both students and teachers need to be strongly considered with suitable implementation strategies evaluated for strengthening the opportunity for a beneficial all-round experience. Indeed, it could be that negative experiences indicate inadequate preparation or facilitation rather an intrinsic limitation of the method. In support of this position, while acknowledging the difficulties of mixed group work, Robinson (2006) stresses the importance of integrating critical reflection and dialogue to promote understandings of differences rather than to ignore them. This is also supported by Cathcart et al. (2006) whereby they suggest that students should be asked to write up their experiences of group work drawing on explanatory concepts which reflect a critical perspective. It is therefore important that teachers working in

internationalised higher education settings are provided the necessary guidance and training on the cultural nature of participation to ensure all students are afforded the opportunity to engage in the teaching and learning process. Equally, higher education institutions should educate students to build a greater collective understanding and appreciation of difference in the way students express themselves, and participate, according to their respective cultural diversity.

We also define collaboration to include collaborating on internal projects involving both students and faculty and administrative staff, as well as projects that reach out to the higher education sector where best practice in teaching, learning and assessment can be shared. To achieve this, we propose to continue with collaborative initiatives, which we have designated staff as acting members of:

- Higher Education Colleges Association (HECA) Teaching & Learning Committee
- National Forum for the Enhancement of Teaching & Learning
- International Conference on Engaging Pedagogy (ICEP)

In addition, we intend to continue with our Student Mentoring programme, which is achieved through the collaborative work of both student mentors and academic staff, we also aim to facilitate further student and faculty collaboration through our Centre for Teaching and Learning. This type of activity is particularly important for our proposed post-graduate programme offering.

Appendix 2: Assessment Of/For/As Learning

As previously outlined, teaching and learning is central to this strategy, but a key mechanism to measure continual success is assessment. Assessment is a multifaceted approach involving the institution, the lecturer and the student, each having a responsibility within the assessment process itself. A key aspect of assessment is feedback, from lecturer to student but also from the student to the lecturer. This feedback further enhances the institutional approach to assessment. The assessment element of this strategic plan was influenced by the Assessment Of/For/As Learning theme developed by the National Forum for the Enhancement of Teaching and Learning in Higher Education from 2016 to 2018. This theme assists in focusing on the importance of assessment and feedback, both formatively and summatively, and represents good practice across the higher education community.

The Assessment Of/For/As Learning approach is embedded into the development process of all our programme development initiatives with consideration for both hard and soft skills. This is further expressed in the Table 1 presented below:

Table 1: Assessment Of/For/As learning

Assessed Element	Description	Examples
Assessment **OF** Learning	To demonstrate achievement	This is typically 'high stakes' summative assessment such as a project or examination contribution to grade classification.
Assessment **FOR** Learning	To provide feedback on teaching and learning	This is typically 'low stakes' formative assessment primarily for feedback purposes, such as an MCQ or class activity.
Assessment **AS** Learning	To self-regulate and critically evaluate	This refers to the importance of assessment feedback, students acting on, and initiating request for feedback.

The table above serves as a reminder of the importance of both formative and summative assessment. To underpin this importance, and to ensure assessment is a functional component of our programmes, the Assessment OF/For/As Learning framework is applied across all of our programmes with specific focus on five core principles which are further tailored at a modular level, these principles are as follows:

1. **Clear and understandable assessment and meaningful feedback.**

   The language around the purposes of assessment needs to be understandable for both staff and students. When assessment is issued it is important that it is clear on the expectations around that specific assessment. This principle is supported through a peer review process which has proved very effective within the institution.

2. **Assessment and feedback approaches to foster a partnership between staff and students.**

   Students have an important role to play in becoming more empowered in their own assessment and feedback processes. Fostering this partnership is an important principle and reflects the growing international and national movement towards students becoming increasingly involved in aspects of assessment and feedback. Within the students-as-partners approach students can input into assessment practices, and lecturers can partner with students to negotiate their assessment methods and/or timing, where possible. Our class representative system acts as a key communication channel between lecturer and student cohorts and continues to be of value to both students, lecturers, and the institution.

3. **Assessment and feedback to be manageable for both staff and students.**

   The assessment load for students should be manageable. A modular system can lead to poor class attendance as students prioritise their assessment time in one module over class time in another module. Similarly, the staff time allocated to assessment design and corrections should be manageable. Our Coordinated Assessment Planning (CAP) approach facilitates this principle.

4. **Diversity in assessment methods including authentic assessments.**

   There is a need for more diverse and at times more authentic assessment within higher education and this is in response to the ever-changing cohort of students (including international students, mature students, part-time students, students with disabilities) and the need to assess a wider spectrum of graduate attributes for today's society. Real-world assessment in a programme is linked with the idea of developing authentic knowledge and skills for life beyond higher education. We aim to adopt an approach that introduces

diversity sequentially throughout a programme to build students' familiarity with different assessment methods.

5. **Self-regulation of learning.**

If assessment is a form of judgement, then giving students feedback and/or discussing their work so that they can judge their work based on this information is also an important purpose of assessment. However, another vital purpose of assessment is doing tasks that allow students to critically evaluate their own work, to be able to monitor themselves. Where students make changes and consider actions to their work, based on this activity, they are now 'self-regulating' their work. All our programmes will have a reflective component, supported by the development of portfolios that facilitate reflection and reflexivity.

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