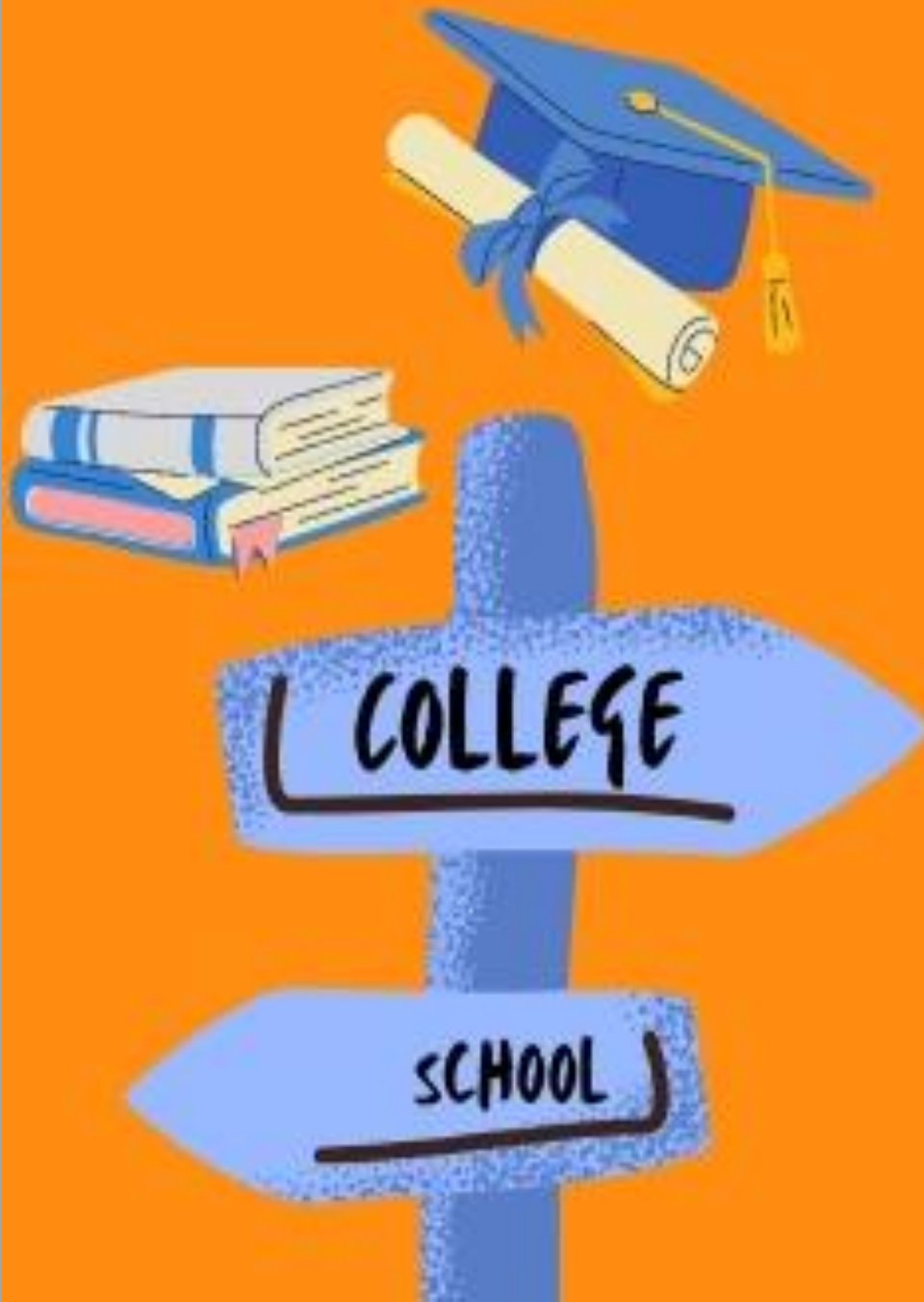


Learning Teaching & Assessment Showcase Jan 2024

Susan Lynott

Developing Accessible and Inclusive Pathways to Higher Education: A research investigation into the outcomes from Transition Year student participation with university precollege courses.

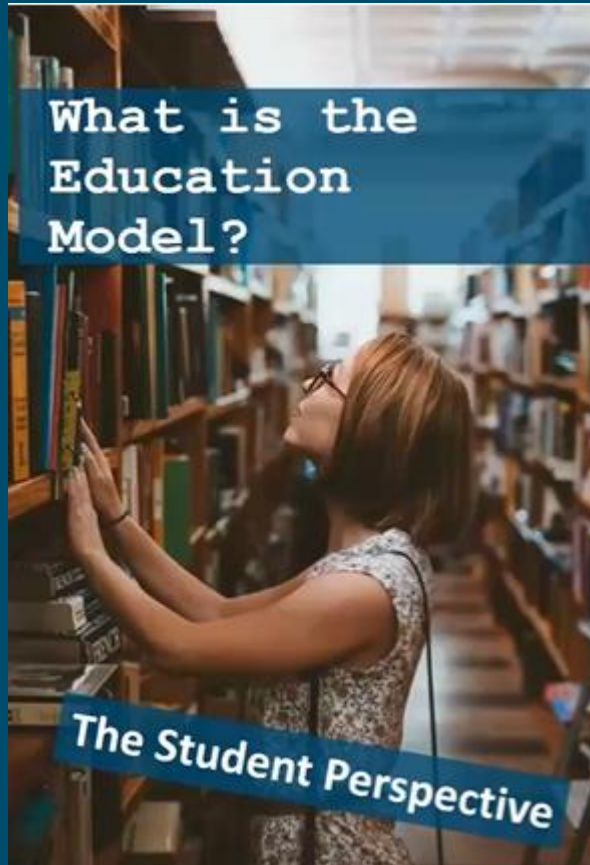


Transition Year Dual Enrolment (TYDE)

- A research study in Flexible Transition from School to TU Dublin
- For Transition Year and LCA Students to STEM Education
- Propelling students from underrepresented backgrounds!

Team: Susan Lynott, Dr. Kevin Mellon,
School of Mechanical Engineering ,TU Dublin.

Strategic Imperatives



UEM Priorities	Alignment	Comment
Academic module duplication minimized	✓	Leveraging existing modules into Schools
Delivered in multi-modal format	✓	Offered as Blended Learning. Partnership with schools.
Transparent Progression opportunities	✓	ECTS Micro-credential and TU Dublin Digital Badge
Choice within their learning pathways.	✓	Early awareness to TU Dublin Education Portfolio
Framework for Learner Experiences	✓	UDL Compliant. Assessed thru' e-Portfolio or Authentic Assessment
Common modules at School, Faculty, University	✓	Fully applicable to all TU Dublin Faculty programmes
Learning outcomes related to sustainability.	✓	Sulitest Digital Badge to be included in module.

Program Outline

- TYDE is a pre-college program that allows transition year students to take modules from the university engineering programs running at the Blanchardstown campus.
- The students get to experience first year modules under the same conditions as students enrolled on TU Dublin programmes.
- Proposed outcome:
 - Successful students can obtain digital badges as part of their TU Dublin Digital Portfolio.
 - Obtain sufficient digital badges and receive a TU Dublin certificate in TYDE.
 - Students will be able to leverage their digital badges should they subsequently enrol on appropriate programs at TU Dublin.
 - Digital Portfolios can also be used by students for applications to higher education, apprenticeships or employment.

Similar Programs – United States

Advanced Placement:

- A national program in the United States and Canada created by the College Board (NY) which offers college-level curricula and examinations to high school students.
- American colleges and universities **may** grant placement and course credit to students who obtain high scores on the examinations.
- Not the same as modules delivered in colleges and credit not necessarily granted.

Dual Enrolment / Concurrent Enrolment:

- The term **dual enrollment** refers to students being enrolled—concurrently—in two distinct academic programs or educational institutions.
- When students are dually enrolled in courses at two separate educational institutions, they may or may not receive academic **credit** at one or both of the schools.
- If students do have the opportunity to earn academic credit at both institutions, the term *dual credit* may be used.
- Concurrent Enrolment may be defined as a subset of DE, Usually college level courses delivered in high schools by college approved high school teachers.

Benefits of TYDE to Students.

- Students get to gain valuable experience of university level courses whilst still in school.
- Helps to build confidence in their ability to take programs in college with emphasis on STEM programs.
- Have their own TU Dublin portfolio.
- Helps students make more suitable college choices, helps in choice of leaving cycle subjects.
- Improve time management skills and learn how to be more independent learner.
- Research found that students who took college courses in high school were more likely to graduate from high school and enroll in college. (Karp et al, 2007)

Benefits of TYDE to Schools

- Partnership with one of the largest university faculties in Ireland.
- Aims to improve enrolment from diverse backgrounds into engineering.
- Can be used to drive innovation in blended program delivery with our programs.
- Research showed significant benefits from pre-college in boosting performance of students in following examinations (An, Brian. 2013).
- Students who take pre-college education were significantly more likely to enroll in college. (Song & Zeiser, 2019)
- Completion portfolio will improve future options for all participants.

Benefits of TYDE to TU Dublin

- Showcases TU Dublin Engineering programmes to students.
- Having achieved TU Dublin Digital Portfolio will make choosing TU Dublin programs preferable.
- Aims to improve enrolment from diverse backgrounds into engineering.
- Can be used to drive innovation in blended program delivery with our programs.
- Research showed significant benefits from pre-college in boosting rates of college degree attainment for low-income students. (An, Brian. 2013).
- Students who take pre-college education were significantly more likely to enroll in college. (Song & Zeiser, 2019)

Pilot Proposal

- Delivery of NQF 6 modules in academic year 2023-2024
 - Workshop Practice 1 – **EENG H1016**
- **EENG H1012** delivered in blended format.
- Partnered with local school CP Setanta transition year program.
- Faculty Board to credit TUDublin digital portfolio for successful completion and may be applicable for extra circular merits.
- Resourced by Faculty of Engineering & Built Environment.



Research Questions

- Propensity to choose STEM at TU Dublin
- Optimal Delivery Modes
- Partnership Model with School
- UEM Markers

Pilot Proposal: Delivery Jan 24

- Delivery Part 1: Workshop Practice 1 – EENG H1016

CP Setanta Phibblestown Clonee Jan 8th – 12th

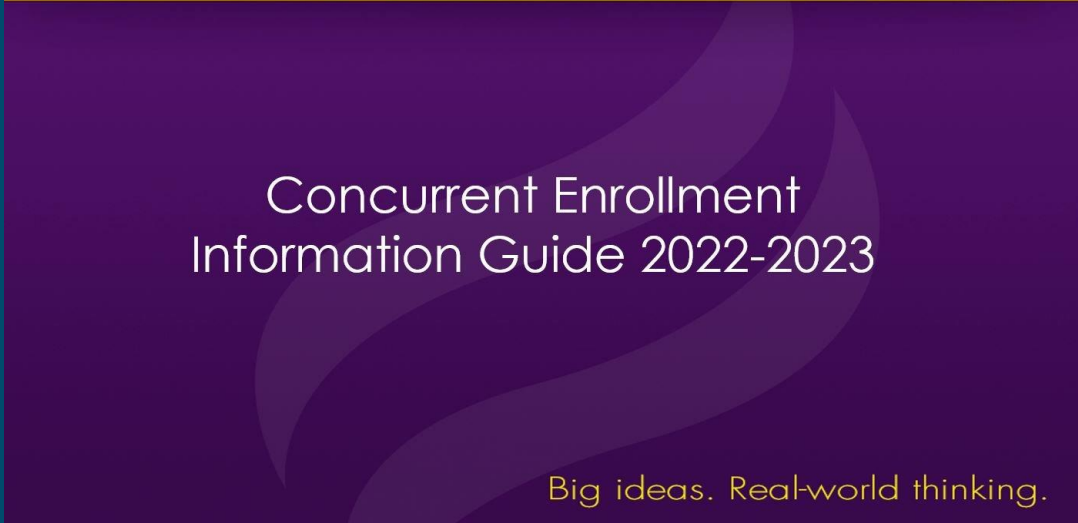
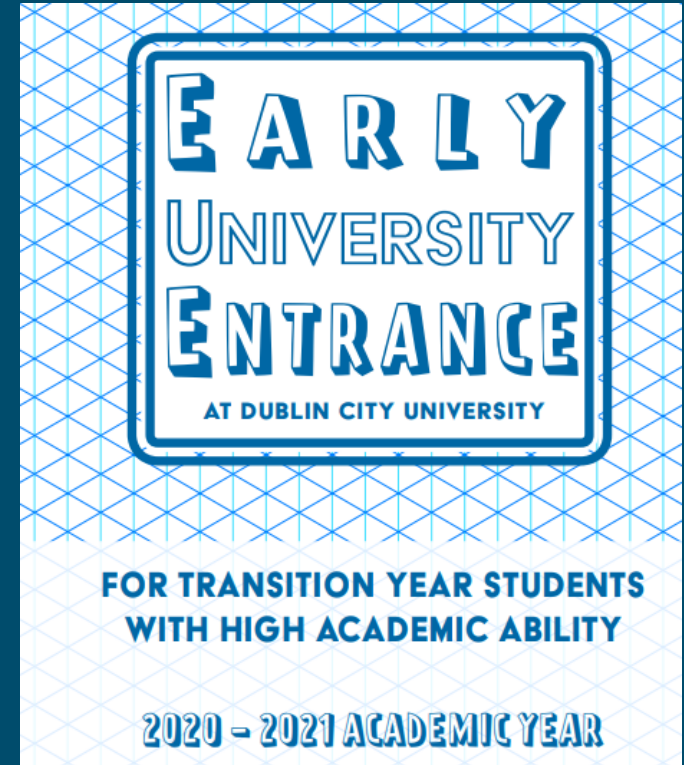
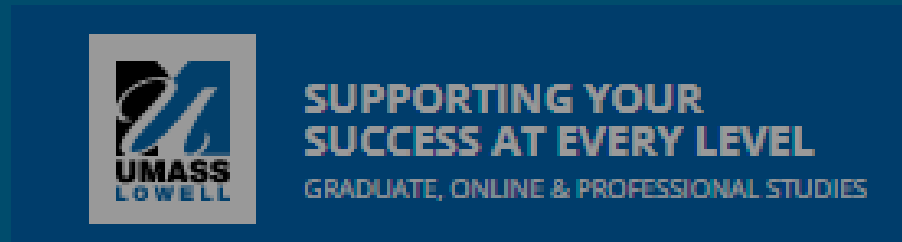
- TY Students undertook activities in the learning outcomes of EENG H1016

- Safety
- Electronics & Soldering
- Mechanical Design
- Programming using Arduino.

- Resourced by Faculty of Engineering & Built Environment Volunteer lecturers, technical officers and equipment.



Benchmarking ...



Bibliography

- Warne, R.T., 2017. **Research on the academic benefits of the Advanced Placement program: Taking stock and looking forward.** SAGE Open, 7(1), p.2158244016682996.
- Warne, Russell T., Gerhard Sonnert, and Philip M. Sadler. **The relationship between advanced placement mathematics courses and students' STEM career interest.** Educational Researcher 48, no. 2 (2019): 101-111.
- Hemelt, S.W. and Swiderski, T., 2022. **College Comes to High School: Participation and Performance in Tennessee's Innovative Wave of Dual-Credit Courses.** Educational Evaluation & Policy Analysis, 44(2), pp.313-341.
- Karp, M.M., Calcagno, J.C., Hughes, K.L., Jeong, D.W. and Bailey, T.R., 2007. **The Postsecondary Achievement of Participants in Dual Enrolment: An Analysis of Student Outcomes in Two States,** Columbia University.
- WICHE (2006). **Moving the Needle on Access and Success. A Study of State and Institutional Policies and Practices.** Western Interstate Commission for Higher Education.
- U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2017, February). Transition to College intervention report: Dual Enrolment Programs.
- Mengli Song ,Kristina L. Zeiser, 2019. Early College, Continued Success: Longer-Term Impact of Early College High Schools, American Institutes for Research.
- An, Brian. (2013). The Impact of Dual Enrolment on College Degree Attainment Do Low-SES Students Benefit?. Educational Evaluation and Policy Analysis. 35. 57-75. 10.3102/0162373712461933.