

QQI Theme: Access, Transfer and progression: exploring pathways and innovations from FE – HE



Case-study B: Building Reflective Skills To Support Learning And Transitioning To Education Beyond Post Primary: NCI Certificate In P-Tech Programme

The P-TECH initiative was launched in 2021 Dublin's North-East Inner City (NEIC), to provide secondary students in the area with an enriching, and early experience of Higher Education, aiming to help them to develop a range of skills, realise their potential as learners and connect to new learning and career pathways beyond school. P-TECH is an innovative model of education-industry collaboration that was developed in the USA by IBM and local educators to build technology skills. In Ireland, the model has been adapted within a partnership collaboration across Higher Education (HE), schools, government and industry partners. Supported by the Department of Education and Skills in and in partnership with the NEIC and Industry partners, the National College of Ireland (NCI) as academic partner had the responsibility of designing, developing and supporting the delivery of a new Certificate.in.P_TECH programme.

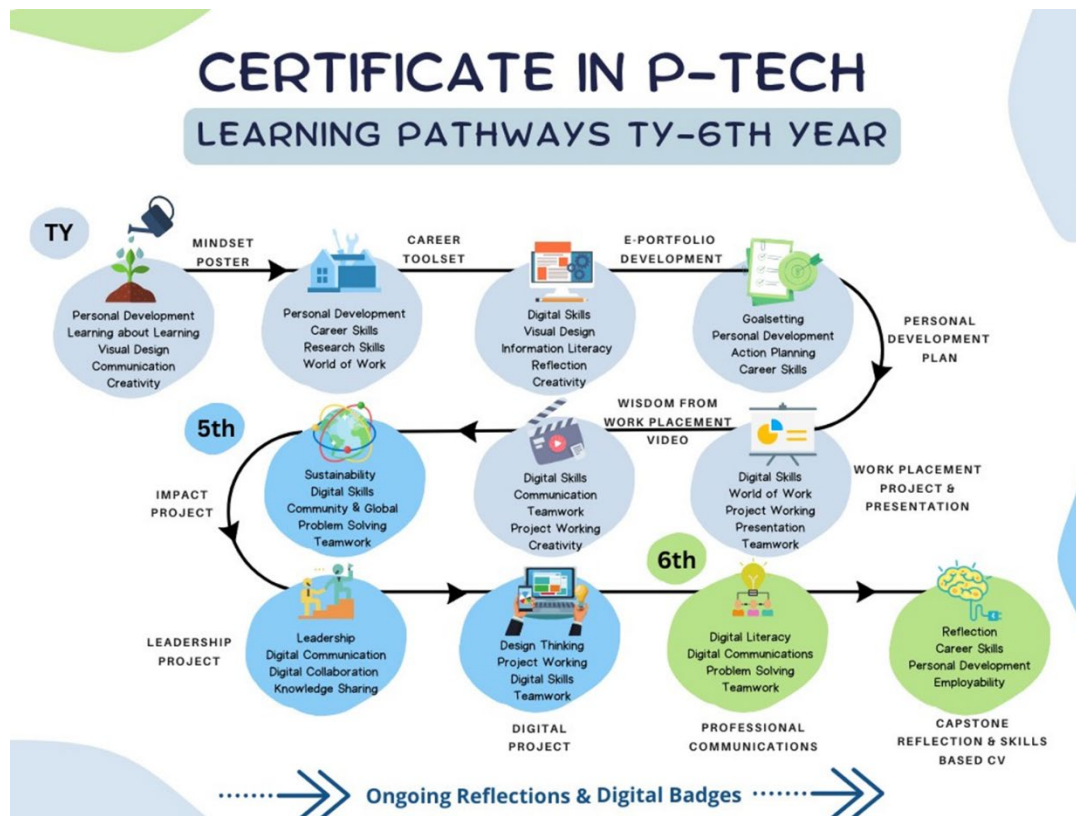
The.Certificate.in.P_TECH is a QQI Level 6 Special Purpose Award (10 ECTS) which is delivered in the senior cycle of schools offering a second transcript to students in addition to the Leaving Certificate. The programme has been designed to provide students with foundational skills and experiences to enhance their learning and to provide a 'bridge' to their future employability and learning. The programme comprises two modules which introduce students to digital skills, business knowledge, 21st Century skills and tools for their personal development.

REFLECTIVE PRACTICE IN THE PROGRAMME

Among its programme objectives, the Certificate.in.P_TECH aims to embed important personal development learning opportunities that will help students to manage their learning, future career choices and personal development. The programme seeks to empower students and creates multiple opportunities for students to learn about collaboration, project working, problem-solving and also how to reflect on learning and experiences. From a pedagogical perspective, reflection is considered an important way for students to enhance their learning, to build greater autonomy and awareness of their

role in learning, to build confidence in their abilities and achievements and to build a habit of identifying actions or solutions.

Students are introduced to reflection during Transition Year (TY) and learn how to write structured reflections using the What?So.What?Now.What model (Rolfe et al., 2001; O’Driscoll, 2007). Reflections are embedded within many assessments throughout the programme offering students an opportunity to write a reflective blog or to complete a reflection using a vlog within their ePortfolio. A list of required reflections is provided but students are also free to include additional reflections. The following graphic illustrates the learning pathways and assessments on the programme. Reflective tasks are embedded into assessments to encourage students to think about what they have learned and how to transfer this learning to other activities in the programme.



In addition to capturing reflections on learning, reflective practice serves as a tool for learning on the programme. Following their TY work placement, students work collaboratively to create a “Wisdom from Work Placement” video which is their reflection on what they did, what they learned and what they might do differently. The video is created as a useful resource for future TY students and provides an opportunity for students to share their learning. Reflection is also used as a tool to build confidence and self-awareness on the Certificate in P-TECH. At the end of the programme, 6th Year

students complete a capstone reflection to identify the skills they have gained. The process of reflecting helps the development of a skills-based CV and provides a useful pause for students to acknowledge their achievements and to articulate their skills. The box below illustrates how reflection is embedded into assessment activities. As part of their learning about how to develop an ePortfolio, students are prompted to reflect.

STAGE 5: YOUR REFLECTION ON LEARNING – TO BE ADDED TO BLOG (20%)

EPORTFOLIO REFLECTION ON MY LEARNING

This is your chance to show your learning on this project. By developing an ePortfolio, you have learned new digital skills, how to create content and also how to make changes when you get feedback. You have also learned about your own abilities and perhaps how you manage creative work, writing or challenges. Here are some prompts to help you reflect:

- What have you learned about yourself while building your ePortfolio?
- What have you learned about working on an extended project like building an ePortfolio?
- What digital skills have you gained from building your ePortfolio?
- What have you learned about the importance of including relevant and appropriate content?
- What was the hardest part of developing your ePortfolio?
- What did you enjoy the most?
- What, if anything, would you do differently next time?
- How will you make sure you maintain and develop your ePortfolio over the P-TECH programme?

CHALLENGES AND LESSONS LEARNED

Initially, student responses to reflective writing were not positive. Reflections were seen as quite onerous and many students did not see the value of writing reflections at all. Teachers reported that for certain students, the task was difficult and motivation was low. At the beginning of the pilot, two reflective frameworks were introduced and this proved confusing. Some explanations in the accompanying course book proved too difficult and there was a lack of exemplars to guide students and teachers. The feedback provided an opportunity to enhance the role of reflection in the programme rather than remove the opportunity of benefiting from it.

In response to feedback, the reflection course book was amended and simplified. Instead of introducing two reflective frameworks to classes, this was reduced to one (What, So What, Now What) and the course book added resources such as videos, activities and examples of student reflections. The number of required reflections was reduced and the topic of reflection was introduced at a later stage in the programme so that students were more ready to engage with it. While reflective writing remained a feature of the programme, a choice of using vlog entries was also introduced to encourage wider engagement.

IMPACT FROM TY TO 6th YEAR

A Dept. of Education interim evaluation of the programme pilot observed that the P-TECH students were “particularly articulate and confident in their discussions during the evaluation. This was notable; very high levels of student confidence was something that was also common across the three schools.” (DOE, 2023).

While there are many other skills and areas of learning to account for student development in the programme, the ability to articulate their learning can be seen as connected to students’ ability to reflect on their learning. At the end of the first year of the pilot, an internal review of students’ reflective work was undertaken to explore students’ reflective practice. The following video captures a cross section of students’ reflection and contains direct quotes from their reflective work. While, at this stage, there were many students who continue to struggle with reflection, the video clearly demonstrates students’ capacity to engage with thinking about their learning and experiences.



Now, at the third year of the pilot, discussions with teachers in the P-TECH schools reveal that many students manage their reflections more seamlessly and that the current 6th Year students have an increased awareness of the purpose and benefits of reflection. Teachers have reported an elevated level of competence among 6th Year students in discussing their learning, their strengths and skills.

While there is a need to engage in more formal research, there is emerging evidence that the programme’s incremental and sustained approach to creating reflective habits

has helped students to build greater confidence and awareness while also helping them to be more proactive and positive about their continuous development. The following excerpts from recent 6th Year reflections seem to indicate an understanding of what they have gained and how this can benefit them as they embark on their next steps.

Samples of 6th Year Reflections

»I think the most useful skill I learned was teamwork and collaboration skill; I was always a reserved student preferring to work by myself; But the P_Tech course allowed me to reach beyond my comfort zone and work with classmates I never talked to and learn to utilise our unique individual skills towards a united goal; I feel I have become more comfortable working in groups and engaging in teamwork; In our interconnected world everything is done through teamwork and now I feel I am capable of entering the workspace with my expanded abilities; In conclusion the P_Tech course has been enlightening; The connection between the world of work and our education system has prepared me enough so now that I feel ready to enter the next step of my journey;

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» Throughout the P_Tech course I have managed to learn many useful abilities; The ability to do teamwork and collaboration project working and personal development; I had a general idea of teamwork even before P_Tech due to school and group work but I feel like I learnt more about it with the P_Tech assignments; One example of when I learnt more about teamwork and collaboration was during the P_Tech internship when I was part of the marketing team; We were told to organise our team by distributing various roles to each member; This was the first time I came across such an efficient way of working as a team; I feel like this skill will be important regardless of what I decide to work as; Teamwork is crucial when doing something;

Project working is another skill that I also had a bit of knowledge about before doing P_Tech as I had completed a few CBAs at school; However project working was taken to a whole new level in P_Tech; Along with the enhanced teamwork the projects required more input and thinking than the school ones; Now I don't have any main problems with harder project while before P_Tech I might have struggled with deciding what to start with or maybe I wouldn't know how to polish up my project; I feel like this skill is important if I end up working in a job which has a lot of project working;

Finally! I feel like my personal development has been a lot more effective ever since I started P_Tech. During 0th year I learnt about the SMART goals which are perfect for personal development. Now I know how to set realistic goals and how to achieve them. I think this is a skill that is crucial in any part of life. In conclusion the P_Tech course has been very educational. Now I feel prepared to go onwards in my life's path at this point.