# Project Based Online Learning for Key Skills

Report on a research project of iScoil and NCCA

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# Project Based Online Learning for Key Skills

A blended approach to the delivery of personalised learning in group settings.

Relevant content and interest led learning is recommended by evidence based research in working with early school leavers in both traditional and online contexts (Archambault, 2010; European Commission, 2014). iScoil has developed an online model that supports this approach and successfully engages early school leavers. As an evolving model recently iScoil has expanded the core structure of course design to include frameworks for Project Based Learning (PBL). This report is based on a pilot project funded by a research grant from the National Council for Curriculum and Assessment (NCCA) that explores the application of online Project Based Learning to expand assessment opportunities specifically in relation to Key Skills within the Junior Cycle framework.

The project was implemented as a collaboration between iScoil online teachers and two partner centres hosting an iScoil 'Blended Centre'. Five students who were out of school for a range of reasons participated in the pilot, successfully achieved recognized accreditation at QQI Level 3 and learning outcomes within the Junior Cycle Key Skills framework. This report provides a background to the research and outlines the process of designing learning and assessment briefs as driving the project was a belief that how a student is assessed sends a strong signal regarding what is important and how they should approach learning (Garrison & Anderson, 2003). Interviews with learners, support staff and Tutors provide a range of perspectives on how the learning journey was experienced. The overall findings conclude that the project was successful and showed a promising application of a blended approach to the development and delivery of a curriculum that would benefit from further research in a school setting.

# Background

## iScoil

iScoil is an online learning service that offers accreditation and learning opportunities to young people aged 13-16 years who are not in mainstream education. Students are referred to iScoil from TUSLA – The Education Welfare Service. As a registered Quality and Qualifications Ireland (QQI) provider iScoil offers a variety of courses leading to a major award at QQI Level 3. iScoil students can access the learning community from home or from a local, youth friendly community base referred to as iScoil's Blended Learning model. The focus of this project report is on the blended model.

Each day, with the support and encouragement from centre-based Support Workers (a youth work professional) students log on to iScoil's virtual learning environment in a Blended Learning Centre. Each student has access to online tutors and an individual mentor to offer direction, support and encouragement. iScoil understands that all students learn differently, and provides each student with a personal learning page that is updated daily by online mentors and tutors. With encouragement from their online mentor, students will work through various online tasks and submit work at their own pace. The work is assessed and added to the student's online digital portfolio when evidence of a designated learning outcome is achieved. At the end of each term, results are submitted to QQI and students gain accreditation. iScoil believes that every young person has a right to education and their goal is to support students through accreditation and further progression. The learning model on iScoil is informed by an active design for learning (Beetham, 2013) that places the student at the centre of content creation and assessment.

## Proposal from iScoil to National Council for Curriculum and Assessment

Recently iScoil have been expanding their model to include more open forms of learning, such as Project-based Learning (PBL). iScoil recognize that relevant content and interest led learning is recommended by evidence based research in working with early school leavers in both traditional and online contexts (Archambault, 2010; European Commission, 2013). The current iScoil strategy in designing content allows teachers to adapt activities to the interest of learners while maintaining the integrity of assessment briefs. In October 2015 iScoil submitted a proposal to the NCCA to further develop their Project Based Learning (PBL) approach.

## Aim:

The aim was of the project was to enhance the current iScoil learning model and provide more accreditation opportunities to students by providing components within the framework of the Junior Cycle.

## Research Questions:

The research questions underpinning the project were:

- How do we expand our current use of digital portfolios and alternative modes of assessment?
- What is the potential of delivering Junior Cycle Key Skills in expanding our approach?

## Design:

The proposed project aimed to further develop the PBL approach and expand assessment opportunities. Specifically PBL briefs would be designed that allowed learners develop their Key Skills according to the Junior Cycle criteria within a framework of PBL.

The project would involve the following phases:

- Designing project briefs that support the development of a range of Key Skills.
- The creation of rubrics to capture student progress in relation to developing their Key Skills.
- Developing a rubric to capture the quality of learning engaged by the individual learner while carrying out their project.
- Exploring the use of technology and online portfolios in collecting evidence for Key Skills.

The concept would be tested in the form of a course developed as collaboration between iScoil online tutors in two subject areas and delivered in a blended centre setting. It would be piloted with small groups of learners to evaluate outcomes and measure success.

## Participants:

There were three main participant groups involved:

1. Learners: Five young people aged between 14-15 years out of mainstream school for a range of reasons including behavioural issues, anxiety and disaffection. The gender breakdown was four male and one female.
2. iScoil Online Teachers: Two online Tutors with subject expertise and online online mentor with a focus on personalised learning plans.
3. Partner Agencies: Two 'Blended Centres' hosted in youth centres managed by Dublin Dun Laoghaire ETB and Crosscare based in Clondalkin, Dublin 22 and Balbriggan Co Dublin. Each centre had one member of staff dedicated to overseeing the project in the centre.

## Methodology

Interviews were the main method used in this evaluation. The evaluator drafted an information sheet for the centers that outlined questions for young people and included consent form (See Appendix 1). The information sheet was given to parents and young people and centre staff managed the consents. The evaluator visited each of the centres while the young learners were engaged in their projects. She interviewed, using semi-structured questions, the young people and the staff working with them.

The evaluator also used the original proposal to NCCA and internal documents generated by iScoil along with the results of an internal review.

## Process

iScoil staff visited the Blended Centres in advance of the learners beginning the programme and met with the locally based support workers. Centre staff also participated in a full day of training on blended learning delivered by iScoil.

### How the PBL Design and Implementation Unfolded

iScoil Tutors had responsibility for the online course design and assessment that was developed and delivered on the iScoil virtual learning environment (Moodle).

The process for developing learning briefs began by mapping the Specific Learning Outcomes (SLO) for two QQI Level 3 components Personal Effectiveness (PE) and Personal and Interpersonal Skills (PIPS). At QQI Level 3 Learning Outcomes relate to a low volume of practical capability and of knowledge and theory. The outcomes relate to the performance of relatively simple work and may be fairly quickly acquired. QQI Level 3 is at the same level as Junior Cycle on the National Framework of Qualifications (QQI, 2015).

| Assessment | PE SLO | PIPS SLO |
|---|---|---|
| Learning Journal | 2, 7 | 2 |
| Group Project | 3,4,5,6,7 | 3 |
| Online Assignments | 1,2,4,5 | ALL |

Table 1: Mapping SLOs to assessment

### Assessment Briefs and Evidence:

The elements of assessment formed a digital online portfolio that met the iScoil QQI quality assurance process including internal and external verification.

### Learning Journal:

Presented in the format of a Blog or Vlog assessed the following outcomes.

| PE | PIPs |
|---|---|
| SLO 2 Demonstrate an awareness of self by exploring strengths, talents, goals, values, challenges, abilities with skills such as communication, assertiveness, time management, and areas for improvement<br><br>SLO 7 Describe the personal learning gained from participation in a planned learning activity. | SLO 2 Compile a personal profile, by exploring awareness of self, ability to manage self, personal rights and responsibilities, and the main personal, social and cultural factors which can influence personal identity e.g. personality/temperament, likes/dislikes, strengths/skills, achievements, values, gender etc. |

Table 2: Learning Outcomes for the Learning Journal

### Guidelines for the Learning Journal:

| Knowledge, skills and attitudes | The learner demonstrates |
|---|---|
| Personal reflection | The learner illustrates personal learning by |
| Application | The learner shows how they apply learning to practice e.g. group project … |
| Some prompting questions for Learning Journal | • What did I learn or do this week?<br>• How is what I learned useful in my daily life or for the group project?<br>• What did I like this week?<br>• What did I not like this week?<br>• What would I like to try next week? |

### The Group Project:

The group project process was presented through online forums, photographic and video evidence and assessed the following learning outcomes:

| PE | PIPs |
|---|---|
| SLO 3 Draw up a personal learning plan following a series of steps, which include identifying learning goals, resources required, timeframe, implementation, review<br><br>SLO 4 Apply communications, team working, hygienic and safe work practices in a workplace or community environment<br><br>SLO 5 Practice a limited range of the skills required for successful team or group work.<br><br>SLO 6 Work as a member of a team making an identifiable contribution to a group activity and seeking help as required<br><br>SLO 7 Describe the personal learning as an outcome of participation in a group activity. | SLO 3 Recognise the role of supports in interpersonal relationships by discussing a range of supports such as personal availability, listening, networking and team working, that could be used in real or fictional situations |

Table 3: Learning Outcomes for the Group Project

### Guidelines for the project:

**Planning:**  Students were asked to complete a project brainstorm to generate ideas for their project. They completed a team profile to identify their strengths and weaknesses. They planned out their project in detail to include project goal, team roles, resources, time-frame, duties, success indicators etc. The planning process both  group activities and individual learning plans.

**Using the forum:** Every week over the project period the group were asked to think about and answer a question posted on the forum by the tutor. The group were directed to write answers that were clear and showed evidence that the group have collaborated on the work.

**Reflection:** Once the project was complete, the group uploaded the project evidence photos and videos and reflected on their learning. This was linked to the original group profile and identified weaknesses that were improved.

### Developing Online Content

The Learning and Assessment Briefs were used to inform the development of content by iScoil Tutors. Online content provided interactive multi-modal activities for students to complete that ranged from theory and knowledge acquisition to practice and application of skills.

Students complete a series of activities to equip them with the knowledge, skill and competence to interact constructively with people, from a position of self-awareness and social sensitivity, to meet the personal and social demands of the learning and working or community environments. These theory based learning activities are linked to real-life contexts and their own experience and support their successful participation and learning from the group project. There are some short group based activities designed to develop team-working capability, assigned throughout the course.

## Course Format

### Project Based Learning

The presentation and sequencing of the course content was informed by a Project Based Learning approach. Each student had an individual learning plan accessible through the online learning environment. This allowed them to work in a self-paced way with supportive personalised feedback and group work was coordinated with the personal progress of students. Each element of Project Based Learning (2013) provided focus for the development of the content, how the students would achieve the learning outcomes and the selection of the most appropriate digital or online format for collaboration and presentation of evidence.
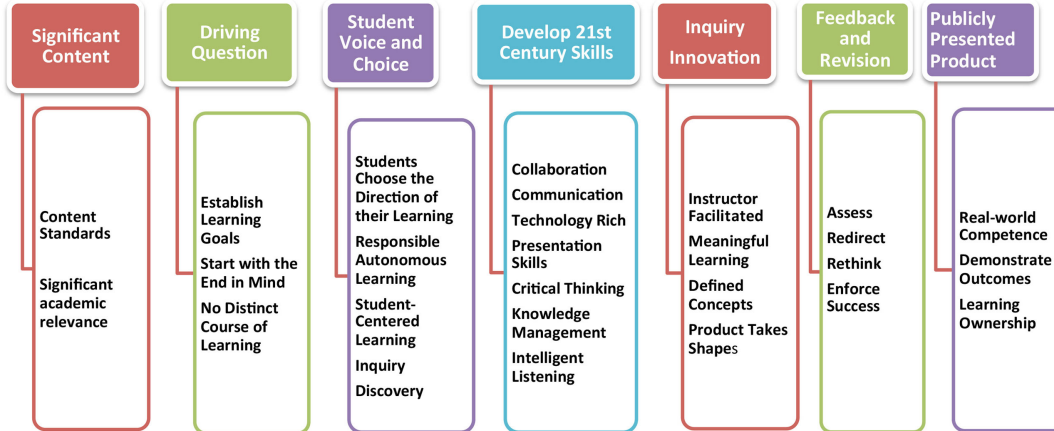
| Significant Content | Driving Question | Student Voice and Choice | Develop 21st Century Skills | Inquiry Innovation | Feedback and Revision | Publicly Presented Product |
|---|---|---|---|---|---|---|
| Content Standards<br><br>Significant academic relevance | Establish Learning Goals<br><br>Start with the End in Mind<br><br>No Distinct Course of Learning | Students Choose the Direction of their Learning<br><br>Responsible Autonomous Learning<br><br>Student-Centered Learning<br><br>Inquiry<br><br>Discovery | Collaboration<br><br>Communication<br><br>Technology Rich<br><br>Presentation Skills<br><br>Critical Thinking<br><br>Knowledge Management<br><br>Intelligent Listening | Instructor Facilitated<br><br>Meaningful Learning<br><br>Defined Concepts<br><br>Product Takes Shapes | Assess<br><br>Redirect<br><br>Rethink<br><br>Enforce Success | Real-world Competence<br><br>Demonstrate Outcomes<br><br>Learning Ownership |

**Figure 1:** The essential elements of Project Based Learning (Lorin and Mayo, 2013).

## Project Based Learning and Junior Cycle Key Skills:

The Project Based Learning approach together with the Learning and Assessment briefs based on QQI Level 3 Personal Effectiveness and Personal and Interpersonal Skills, blended online content and face-to-face work with small groups to support assessment of a range of Junior Cycle Key Skills represented below:



**Figure 2:** Junior Cycle Key Skills (See Appendix 2 for full detail)

Further detail on how the essential elements of Project Based Learning support this approach is outlined under each element heading:

**Significant Content:** iScoil developed interest led online content.

**Driving Questions:** A Driving Question that "starts with the end in mind" allows students to identify their learning goals and take ownership of the learning process. The Driving Question prompts what the students needs to know, do and apply. Asking these questions supports students to begin student-centered and responsible, autonomous learning. By supporting choice and/or decision-making authority in approaching their method of investigation students are involved in establishing the driving question. What follows is a thread of relevant content that supports the group of young people towards an outcome while facilitating a planning and implementation process that relates learning to the content and module standard.
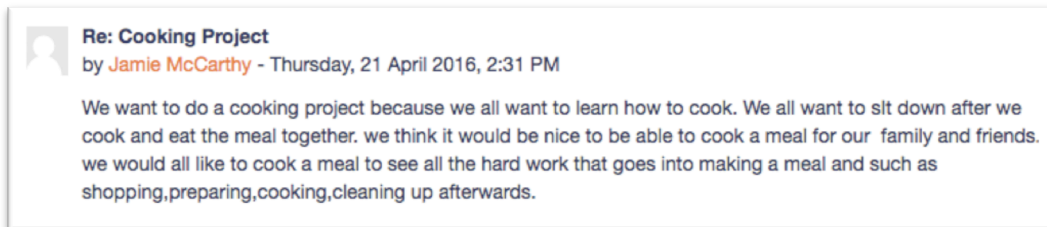
> **Re: Cooking Project**
> by Jamie McCarthy - Thursday, 21 April 2016, 2:31 PM
>
> We want to do a cooking project because we all want to learn how to cook. We all want to slt down after we cook and eat the meal together. we think it would be nice to be able to cook a meal for our family and friends. we would all like to cook a meal to see all the hard work that goes into making a meal and such as shopping,preparing,cooking,cleaning up afterwards.

**Figure 3:** Student response to online forum facilitating the establishment of a Driving Question

**Student Choice and Voice:** Though discussion and questioning that is facilitated by the online tutor and or by Support Workers the young people arrive at a choice of project.

**Developing 21stCentury skills:** Young people are developing their online skills along with other skills such as communication by talking and listening to others, by typing, reading and using audio visual material and collaboration by working together.

**Inquiry, Innovation:** In PBL inquiry is a repeated process where students ask questions, are asked questions, find resources to help them answer and then ask further questions. Projects can incorporate different information sources, mixing the traditional idea of 'research' (reading a book or searching a website) with more real world field-based interviews with people in their community. A thread of inquiry is facilitated throughout the Personal Effectiveness component that supports inquiry -based skills -related learning outcomes. For example, young people are encouraged to use the web to research key components of being personally effective but also made aware of the importance of critically evaluating the source of information. They reinforce this knowledge with further searches on identifying a sports personality who has shown evidence of being personally effective. Following on from this as part of their group project they could use this knowledge to interview a local sports person or community representative that they have identified as being someone who is an example of an effective team player.

**Feedback and revision:** iScoil on line educators generate feedback in the course of on line engagement. Young people start each session with a summary of feedback from the previous one and they get a weekly summary of their progress. The on line learning process provides constant opportunities for revision.

**Publically Presented Product:** Both of the projects resulted in publically presented products. The meal was enjoyed by a number of people in the centre on the day it was prepared. It was also photographed (see Below) and the finished sign is displayed publically on the wall of the project where it was designed and made.



**Figure 4:** Student Group Project Process using Padlet embedded in the Virtual Learning Environment (Ronanstown Cooking a Meal)

## Outcomes for Participants

### Students

Feedback from young people was very positive. They like the iScoil programme.   They like having choice in what content they cover. Good examples were individual assignments that focused on rapping, Katy Taylor, sport or animals.

> "I like doing stuff I'm interested in"

Young people also liked getting feedback from the iScoil mentor.  They like the reports they get every week and being able to see what they've done and how much they've achieved.

When asked if anything about the programme surprised them, four young people responded as follows:

> "How well it's gone"
>
> "How quickly it's gone"
>
> "I can do this"

"I thought it would be more strict"

Once engaged in the programme one young people said

"I'm surprised at how easy it is"

"Sometimes I forget the time"
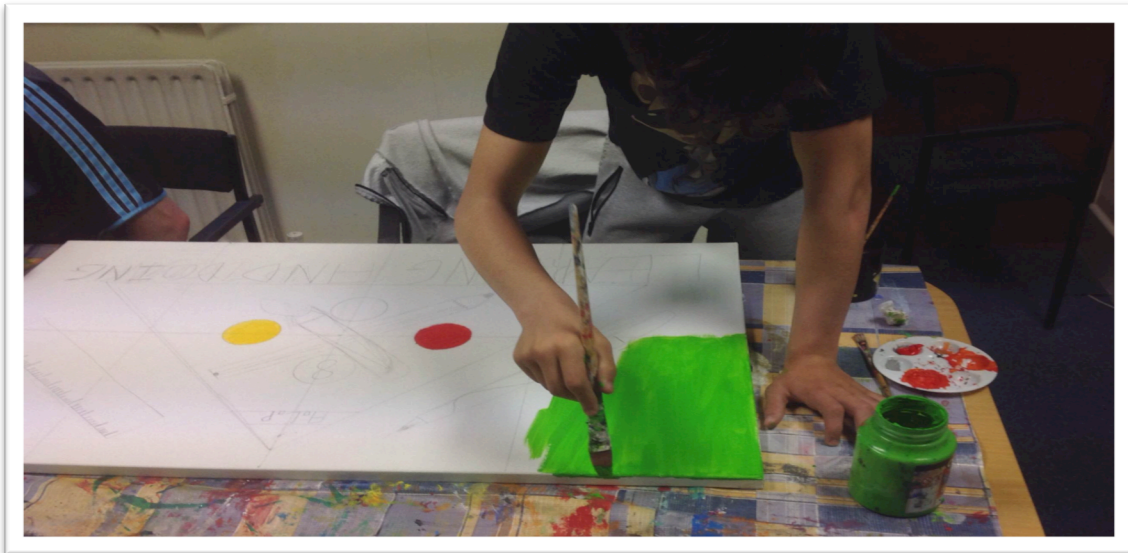


**Figure 5:** Collecting evidence of the planning process in Balbriggan

The learning environment is important for these young people, as is the relationship they already have with the adults that support them.

However the learning process is not always easy:

"Sometimes it's hard – it wrecks my head".

When things are hard the working relationship between the tutor/youth worker and the young person, coupled with the flexibility afforded by the programme allows the young person to be supported to get back on track.

"It's great to be able to leave it and come back later"

## Support Workers

Support Workers providing direct face-to-face support to young people also received the programme positively.

### Young People centered and Flexible

For the adults it was really important that the programme was young person centred. It started where the student was at and allowed them to go at their own pace, to follow their own interests, to see how they are progressing and provided a structure so they could realistically achieve certification. The content was engaging and workflow was broken down into manageable chunks. Regular feedback from iScoil online mentors was seen as validating for young people.

The young people all came from different backgrounds and had a different options open to them. Some had few options, such as those who were excluded from school, others knew they had the possibility of returning to school perhaps to sit the Junior Cert while others hoped they could return to school but did not know. They started with different levels of literacy and numeracy: from those with significant literacy deficits and who needed a lot of support to those who had strong literacy skills and could work well on their own for a time. The programme engaged them all in different ways.

> 'The flexibility was important – it opened out possibilities and tried all the different combinations.'

> 'The programme resulted in young people being able to access accreditation when they would never have achieved it otherwise'

### Online Content and Assessment

Having content and assessment of learning online allowed for a lot of one-to-one interaction and support. There was time for conversation and for teasing out learning. This worked towards building positive relationships. The programme included topics built around the personal interests of young people. Individual progress was tracked daily and there was regular positive feedback. Young people were at the heart of the development and delivery of the programme and they responded positively to this.

### Recognised Certification

The recognition that a QQI award brings is really important for these young people. In essence QQI awards provide access to the National Framework of Qualifications. External recognition is especially important for young people who have not previously had a realistic opportunity to achieve it. The programme provides an important certification route for young people who are out of school. It also connected them with a mainstream school curriculum in a way that was achievable and engaging.

iScoil internally generated certificates provided motivation for young people especially in the earlier weeks of the programme. This type of certification for personal milestones is useful in providing a target for participants.

### iScoil Tutors

iScoil tutors enjoyed the innovative nature of working on the programme that blended two accreditation streams i.e. QQI and Junior Cycle. The framework of Project Based Learning was thought to be key to this success. Young people liked working as part of a team and practical

activities such as cooking a meal created a lot of interest and a buzz of engagement. The timing of the teamwork projects is important: not too early in the programme and there is also the inherent challenge of continuing with the project when people are missing.

iScoil responded to needs as they were articulated by the centres or the young people directly. This resulted in solutions that were tailored to meet complex needs.

> 'Different centres, different personalities, different youth workers, different perception of how to provide support, the workers different level of comfort with technology, different relationships with young people and different young people.  The young people had different levels of comfort with their support workers'

Feedback to centres in the form of the weekly report was motivating for young people as was the feedback directly given to young people. The messages that young people saw when they logged on worked well. They all provided positive motivation for them. Meeting young people where they were at with positive reinforcement worked, as did breaking learning material down into manageable chunks. It was suggested that more art-based projects would enhance the programme content.

## Certification outcomes

### QQI Level 3

Five young people, three from Ronanstown and two from Balbriggan achieved learning outcomes with assessment by digital portfolio and their provisional results have been submitted to QQI. Three young people in Ronanstown successfully completed Personal and Interpersonal Skills and Personal Effectiveness. Two young people in Balbriggan successfully completed Personal Effectiveness.



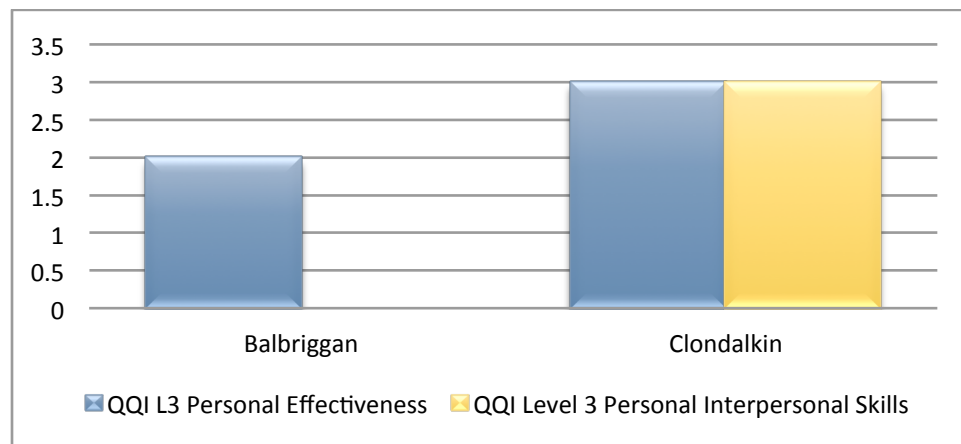**Figure 5:** QQI Accreditation Achieved

### Junior Cycle Key Skills

The project based learning approach blending online content and face-to-face work with small groups had key components that supported assessment of Junior Cycle Key Skills. The digital

portfolios of each student showed evidence of achieving learning outcomes within the following areas of the Junior Cycle Key Skills Framework.

- Managing Myself
- Staying Well
- Communicating
- Being creative
- Working with Others
- Managing Information and Thinking

Key components of the programme that were identified as contributing to the integration of Junior Cycle in this way were:

- The online platform supporting digital skills
- A Driving Question and Project supporting Creativity
- Inquiry based content supporting information skills
- Collaboration, communication and team work
- Online content and digital media supporting personal learning
- Digital media for assessment

## CONCLUSION

iScoil has successfully used a Project Based Learning approach in the delivery of an educational programme in a blended learning setting leading to QQI certification and supporting the integration of Junior Cycle Key Skills. The PBL approach was identified as a successful framework that facilitated young people to develop the direction of course work and take ownership over their learning. It engaged students in an active learning process where they identify a theme, issue, activity or particular outcome. The teachers, in this case iScoil online tutors, facilitated students to develop their project while ensuring the integrity of the assessment process by supporting the demonstration and achievement of learning outcomes along the way. However, online or blended project based learning needs to be carefully introduced. iScoil used individual projects based on the interests of young people as one of the ways of engaging them and encouraging them back into a learning environment. Group projects were then introduced when young people had already had a positive experience of achievement. Overall there is good evidence that this approach can be successfully applied in the development of online and blended learning programmes for Junior Cycle Key Skills. It would benefit from further pilot programmes in a school setting.

## Appendix 1 Interview Questions

For Learners:

- Do you like this way of learning? Why?
- Is there anything that gets in the way of you taking part? And if so what would help this?
- Have you been surprised by anything? If yes what?
- Do you have any suggestions for making the programme better?
- Is there anything else you'd like to say?

For Centre Staff:

- What do you like about the programme?
- Is there anything you could suggest which would improve the programme?
- Have you had enough information to support young people effectively?
- Are the different roles and responsibilities clear?
- Has anything surprised you? If yes what?
- Is there anything else you'd like to say?

iScoil Tutors and Mentors:

- What do you like about the approach?
- Is there anything you could suggest which would improve it?
- Have you had enough information to support young people effectively?
- Are the different roles and responsibilities clear?
- Has anything surprised you? If yes what?

## Appendix 2 Junior Cycle Key Skills



- Developing my understanding and enjoyment of words and language
- Reading for enjoyment and with critical understanding
- Writing for different purposes
- Expressing ideas clearly and accurately
- Developing my spoken language
- Exploring and creating a variety of texts, including multi-modal texts.

- Knowing myself
- Making considered decisions
- Setting and achieving personal goals
- Being able to reflect on my own learning
- Using digital technology to manage myself and my learning

- Using language
- Using number
- Listening and expressing myself
- Performing and presenting
- Discussing and debating
- Using digital technology to communicate

- Being healthy and physically active
- Being social
- Being safe
- Being spiritual
- Being confident
- Being positive about learning
- Being responsible, safe and ethical in using digital technology

- Developing good relationships and dealing with conflict
- Co-operating
- Respecting difference
- Contributing to making the world a better place
- Learning with others
- Working with others through digital technology

- Being curious
- Gathering, recording, organising and evaluating information and data
- Thinking creatively and critically
- Reflecting on and evaluating my learning
- Using digital technology to access, manage and share content

- Imagining
- Exploring options and alternatives
- Implementing ideas and taking action
- Learning creatively
- Stimulating creativity using digital technology

- Expressing ideas mathematically
- Estimating, predicting and calculating
- Developing a positive disposition towards investigating, reasoning and problem-solving
- Seeing patterns, trends and relationships
- Gathering, interpreting and representing data
- Using digital technology to develop numeracy skills and understanding

**BEING LITERATE**
**COMMUNICATING**
**MANAGING MYSELF**
**WORKING WITH OTHERS**
**KEY SKILLS**
**STAYING WELL**
**BEING CREATIVE**
**MANAGING INFORMATION & THINKING**
**BEING NUMERATE**

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