EDUCATION AND TRAINING INSPECTORATE

Independent evaluation of the Gaeltacht e-Hub Pilot Project

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Providing Inspection services for:
Department of Education
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and other commissioning Departments

The Education and Training Inspectorate
Promoting Improvement

Contents

Introduction

This report of an evaluation of the Gaeltacht e-Hub Pilot Project was commissioned by the Department of Education[1] (DE), Government of Ireland from the Education and Training Inspectorate[2] (ETI) Northern Ireland to provide an external, independent view of the pilot project.

The Gaeltacht e-Hub is an innovative three-year pilot project of the Department of Education (DE). Initially, the pilot project was aimed at facilitating students of physics in Gaeltacht post-primary schools to study online the Leaving Certificate Physics Higher-Level course through the medium of Irish for examination in 2021. It was introduced following a 5-week taster module for Transition Year (TY) students, which was implemented from February to March, 2019, and subsequently extended to include a second cohort who will take the Leaving Certificate examination in September 2022.

The pilot is being co-ordinated by An tAonad um Oideachas Gaeltachta (AOG - the Gaeltacht Education Unit) in the DE with support and advice from consultants, H2 Learning.[3]

The primary focus of the evaluation is to:

- capture how the project has evolved;
- ascertain whether the online provision is successful in enabling students to study for the Leaving Certificate Physics Higher-Level Course through Irish; and
- assess the potential for extension and scalability of the project.

The original timings and organisation of evaluation of the e-Hub pilot had to be reviewed to take account of the constraints and limitations imposed by the COVID-19 virus pandemic.

[1] https://www.education.ie/en/
[2] https://www.etini.gov.uk/
[3] https://www.h2learning.ie/ H2 Learning – e-Learning Services and Consultancy Organisation. H2 Learning were commissioned by DE to provide an advisory and co-ordination service to support the DE in the implementation of the E-Hub Pilot Project.

Background

A key aim of the DE Policy on Gaeltacht Education 2017–2022[4] is to strengthen Irish-medium educational provision in schools and early-years settings in Gaeltacht areas. The provision of a wide range of subject choice to be taught through the medium of Irish, poses a challenge for post-primary schools, particularly in the senior cycle, due to a lack of availability of suitably qualified specialist teachers who also have high levels of proficiency in Irish and also the generally small size of schools in rural Gaeltacht language-planning areas[5].

In seeking to address this challenge, the DE Policy on Gaeltacht Education identified the potential for the establishment of a pilot Irish-medium e-learning hub (an e-Hub) to extend the range of subject choices through Irish, available to students in small post-primary Gaeltacht schools and Irish-language Units (Aonaid), thereby providing students with access to teaching and learning physics through the medium of Irish, which would not otherwise be accessible to them.

In advance of rolling-out the Gaeltacht e-Hub Pilot Project, the DE commissioned a review of existing distance learning projects around the globe. This International Review Report[6] by H2 Learning examined the provision of supplementary online distance education in a number of countries.

The report proposed an implementation plan to the DE in relation to offering the Leaving Certificate Physics Higher-Level Course to students online through the medium of Irish. It provided a range of recommendations, informed by the international review, in relation to the role of an e-Teacher, an e-Mentor, the students and an e-Hub space within each of the participating schools.

In June 2018, the DE subsequently sought expressions of interest from post-primary physics teachers in Gaelcholáistí and Gaeltacht schools to take up the role of e-Teacher. Two teachers initially, while continuing to teach in their own schools[7], commenced their roles as e-Teachers on a part-time basis in September 2018 for an initial period of three school years (September 2018-June 2021).

Context

During the first year, 2018-2019, a grant for the purchase of information and communications technology (ICT) equipment was allocated to the e-Hub provider schools to support the establishment of an e-Hub space within their own schools. Additional teaching hours were also provided to enable the e-Teachers to become familiar with teaching physics online and to prepare materials in Irish for the formal rollout of the preparatory phase of the project.

During the first year, the e-Teachers designed and implemented a range of sample lessons prior to offering a five-week taster session for TY students interested in studying physics through Irish for the Leaving Certificate.

The TY pilot taster sessions, together with a short online collaboration between the two e-Teachers and their students, supported the project and the DE in implementing the full rollout of the Leaving Certificate Physics Higher-Level e-Hub pilot from September 2019.

[4] https://www.education.ie/en/Publications/Policy-Reports/Policy-on-Gaeltacht-Education-2017-2022.pdf
[5] https://www.gov.ie/en/publication/1ec20-gaeltacht-language-planning-areas/
[6] https://www.education.ie/en/The-Education-System/Policy-on-Gaeltacht-Education-2017-2022/irish-medium-e-Hub-pilot-project-international-review-and-advisory-report.pdf
[7] Pobalscoil Chorca Dhuibhne, (x 2 teachers) Daingean Uí Chúis, Co. Chiarraí; and Coláiste na Coiribe (x 1 teacher) Cnoc na Cathrach, Gaillimh

Following the Expression of Interest process, the receiver schools[8] applied to participate in the e-Hub pilot. Each participating school also received a grant from the DE to purchase equipment to facilitate their participation in the project. Additional teaching hours were also allocated to each receiver school to enable an identified e-Mentor (a teacher already employed by the school) in each receiver school to be present during all timetabled class periods. The e-Mentor supports the students in their learning and participates in a weekly review meeting with the e-Teachers. The e-Hub online lessons for Higher-Level Leaving Certificate Course in Physics through the medium of Irish commenced in September 2019. A third post-primary physics teacher took up the role of an e-Teacher in September 2020. The three e-Teachers, based in two Gaeltacht post-primary schools, are delivering the course online to the students in the eight Gaeltacht receiver schools involved in the pilot project.

In addition to attending their online classes and undertaking virtual simulations of experiments online, the students also attended a practical day conducting a range of experiments in the National University of Ireland, Galway (NUIG) in 2019 to supplement their learning.
Currently there are 22 students, drawn from the eight Gaeltacht receiver schools, participating in the Leaving Certificate Physics Higher-Level e-Hub pilot project. Two of the schools have students in both years six and five (Y6 and Y5).

The number of students reported to have participated in the e-Hub pilot programme from the outset is set out in the table below.

School Year	No of Y6 students	No of Y5 students	No of Y5 students who left the pilot during the year	No of Y6 students who left the pilot during the year	No of Y6 students achieving the Leaving Certificate
2019/20	2	12	6[9]	0	2
2020/21	6	16[10]	0	0	Pending

Evaluation methodology and evidence base

The inspectors held discussions with the key stakeholders and external providers; reviewed relevant documentation and digital resources; issued questionnaires; and observed online lessons.

The full evidence base comprises:

- questionnaires issued to the principals, e-Teachers, e-Mentors, H2 learning, parents and students;
- discussions with representatives from DE and AOG, H2 learning, principals, e-Teachers, e-Mentors and students;

[8] Receiver schools - the schools from which students enrol on the online course are Gairmscoil Mhic Diarmada, Árainn Mhór; Coláiste Ghobnatan, Baile Mhic Íre; Coláiste Pobail Ráth Chairn ; Coláiste Naomh Eoin, Inis Meáin; Coláiste Cholmcille, Indreabhán; Coláiste Naomh Éinne, Inis Mór; Coláiste Mhuire, Tuar Mhic Éadaigh; Coláiste Naomh Feichín Corr na Móna

[9] It is reported that, at an early stage, six students in three schools opted out largely due to challenges related to studying mathematical concepts and complex terminology in the medium of Irish while retention remains 100% in 2020-2021.

[10] These students are due to complete their Leaving Certificate in 2022.

- lesson observations of four sessions (2 double lessons and 2 single lessons), totalling four hours;
- examples of e-Teacher documentation containing: samples of schemes of work which included lesson planning and evaluations; homework and assessments including feedback; research assignments; and student progress tracking records; and

- documentation from the DE that included relevant briefing materials and guidance for schools.

Responses to the questionnaires

A total of sixty-eight questionnaires issued to: students (24), parents (22), principals and teachers (21) and H2 Learning (1).

Seventy-five percent (51) of the questionnaires were completed and returned. Overall, almost all of the students', parents' and staff's responses were positive about their experiences of the pilot project recognising: the unique opportunity to access the Leaving Certificate Physics Higher-Level course through Irish; the strong blend of pastoral and academic support both online and in the classroom; and the well-established collaborative relationships for learning which have developed within the online learning environment. Almost all of the parents who responded agreed, or strongly agreed, that they were satisfied with their child's experience of the pilot project.

Any suggestions, recommendations or issues raised in the questionnaire responses were discussed with representatives from the DE.

Key evaluation findings

Leadership and management

This is a successful project, which is well resourced and managed effectively by the DE and its agencies[11], H2 Learning, the e-Teachers and the e-Mentors and the two provider schools and eight receiver schools, in order to provide access to a provision (physics) which would not otherwise be available to the students. Currently, for students in the receiver schools, this is the only means of accessing this provision.

The DE and its agencies, including consultants from H2 Learning, have provided a wide range of effective and well-targeted supports to the participating schools which are well designed to facilitate the rollout of the project.

The DE has secured the recruitment of three e-Hub physics teachers employed in two Gaeltacht post-primary schools (e-Hub provider schools) to deliver the programme.

The H2 Learning team liaises regularly with the DE, the participating schools and the e-Teachers and e-Mentors to provide strategic advice and ongoing logistical support to coordinate and implement the smooth running of the project. They have delivered relevant training to the e-Teachers and e-Mentors in the selection and use of digital technologies, and have identified and disseminated examples of good practice to support online teaching, learning and assessment through the medium of Irish.

[11] An Chomhairle um Oideachas Gaeltachta agus Gaelscolaíochta (COGG) and the Professional Development Support Services for Teachers–Technology (PDST-Technology) have also supported the project.

The e-Teachers and e-Mentors have clear roles and responsibilities (Appendix 2). They work collaboratively and well to prepare and manage successfully their allocated class time for the delivery of the programme, including organising regular meetings and updates with parents and other key stakeholders.

The e-Teachers have benefited from links facilitated online by H2 Learning with teachers in other countries. They have engaged in relevant professional development in the use of digital technologies to upskill in their online teaching of physics through Irish. They have adapted their lesson plans and teaching strategies to meet the requirements of a virtual learning environment.

The provider schools have organised a common timetable, facilitated the release of e-Teachers to support the programme, and provided classroom and office space to accommodate the e-Teachers during the delivery of their remote learning sessions. The receiver schools have identified a teacher as an e-Mentor to support the students and e-Teachers, and allocated classrooms for the e-Mentors to supervise the students during online lessons, including their access to hardware and software.

The success of the e-Hub pilot programme demonstrates the potential for more extensive online collaboration across Irish-medium post-primary schools in the Gaeltacht areas and beyond.

Provision

The e-Teachers and e-Mentors, plan, teach, lead learning and carry out assessments through developed schemes of work, which structure and sequence a blend of synchronous and asynchronous lessons supported by relevant commercial videos that build on the students' interests and strengths and deliver the intended learning outcomes in an effective manner. The modules and units of work within these schemes cater well for the theory and practice demands of the Leaving Certificate Physics Higher-Level specification, incorporating regular assessments and feedback opportunities to monitor and evaluate student engagement and progress.

The e-Teachers make efficient use of classroom and office space within their schools to accommodate: hardware and software for distance learning; the positioning of webcams to incorporate a dynamic aspect to lessons; and the storing of resources.

During their online lessons, the students receive regular feedback on their progress from their e-Teachers through well-targeted question and answer sessions, digital quizzes and plenary sessions.

All of the online lessons observed[12] were effective and delivered through a well-designed and safe digital learning environment, which has virtual breakout rooms for group work or individual support as required. The lessons incorporated the use of a broad range of effective digital technologies and strategies to support well-paced collaborative and independent learning across a good range of differentiated tasks and research assignments. Interactive questioning and quizzes, questions and answer discussions, bespoke demonstrations and the consolidation of scientific concepts through prediction with simulation software are all used to good effect to develop the students' thinking and problem-solving skills. Collectively, the approaches observed by the inspectors were successful in progressing learning and achieving the intended learning outcomes.

[12] Four lessons (2 x Double periods and 2 x Single periods), totalling four hours.

Throughout the year, the students have well-planned learning opportunities to select and use a range of digital tools and resources such as OneNote, PowerPoint, Teams, Zoom, Google Forms, Khan Academy, Phet[13]-simulations, Quizlet, Kahoot, Edpuzzle, Spark and Google hour[14] to engage actively in lessons and lead their own learning.

The students who met with the inspectors were articulate, mature and friendly and indicated their clear appreciation for the opportunity to undertake the Leaving Certificate Physics Higher-Level, the experience of distance learning, and the support they receive from their e-Teachers and e-Mentors, within and beyond class time.

The students spoke positively about their experiences of the online platforms to deliver their lessons; the feedback they receive to improve their work; and their opportunities to engage in real-time collaborative work, which includes setting out and sharing their answers to calculations and theory questions, constructing diagrams, displaying data, and interpreting results from demonstration experiments and simulations.

To support the hands-on development of practical skills[15], the students also attended a practical day in the physics laboratories of the NUIG where they undertook experimental work in groups which also fostered their positive working relationships. Students who attended the practical sessions in the physics laboratories in NUIG told the inspectors that they enjoyed the practical work and welcomed the opportunity to meet and work with other students. They suggested that the practical work would be more beneficial if held earlier in the year as it impacted positively on collaboration between students in their own time.

Outcomes

Twenty-two students are availing of the opportunity to study the Leaving Certificate Physics Higher-Level course. Furthermore, two Y6 students, who joined the pilot project in September 2019, successfully completed the Leaving Certificate Physics Higher-Level course in 2020 and received Calculated Grades (due to the need for contingency plans related to the COVID-19 virus pandemic).

Inspectors considered the demonstrable fluency in Irish of the students, bearing in mind variations in their prior Irish language experience.

They observed:

- the successful integration of context, dialect and subject-specific terminology by the teachers;
- how the students were supported to focus on the meaning of key vocabulary and linguistic form within its scientific context; and
- ways in which the written and oral interactions extended both the students' language and their comprehension in physics.

[13] Physic Education Technology. The PhET Interactive Simulations project at the University of Colorado Boulder creates free interactive math and science simulations.
[14] Allocated time for independent research
[15] The mandatory physics experiments are being carried out virtually in 2021 due to the COVID-19 virus pandemic restrictions.

The students are well motivated and have a positive disposition to learning. Their critical thinking, research skills and ability to synthesise information from a wide range of sources are developed well through their confident engagement in learning and the completion of regular homework and research assignments.

The ICT infrastructure in place is reliable and robust. The digital environment is safe and supports successfully the collaborative teaching and the learning outcomes. An online provision, including resources and software for Leaving Certificate Physics Higher-Level through Irish, is now in place.

The lessons observed and associated documentation reviewed were effective in progressing the students' learning. The professional practice and knowledge of the e-Teachers in relation to teaching physics through the medium of Irish online have been strengthened, as evidenced by their training and research and their effective and reflective practice in leading learning using digital technologies to engage the students in key theories, concepts and principles of the Leaving Certificate Physics Higher-Level course.

The success of the e-Hub has demonstrated[16] that the Leaving Certificate Physics Higher-Level course may be delivered entirely online and has potential to be scaled up to provide a wider range of subjects (practical and non-practical) to small groups[17] of students in more schools. In going forward with the expansion of the project, the role of the e-Mentor will become increasingly more important in anticipating the support needed for students with a wider range of abilities and needs.

Expansion and scalability

Arising from the findings in this evaluation, the report considers some of the implications for expansion and scaling-up of the pilot and for extending the e-Hub across a wider range of schools and subjects. The recommendations build upon a foundation of successful research and development already established through this pilot by the stakeholders.

The recommendations are set out within the current educational context of the COVID-19 virus pandemic. As a result of restrictions on the operation of schools, arising from the pandemic since March 2020, schools, more generally than was the case before this pilot, have responded by providing remote teaching, including online. This recent shift in attitudes and practice has significantly increased receptivity to forms of online teaching and learning across the profession and therefore has changed the environment in which the scalability of the pilot may now be contemplated and planned.

Some of the implications for expansion and scaling-up are the need to:

1. provide support to build the capacity for learning amongst those students undertaking learning remotely to help them understand and be prepared for the demands of working independently online by ensuring that they are well-motivated, self-regulating and have a positive disposition as independent learners;

2. prioritise funding for the strategic management of the programme and the allocation of additional resources to:

    - co-ordinate the purchasing and distribution of the required hardware and software;

16 The State Examinations Commissions have agreed that the mandatory experiments may be conducted virtually for this pilot
17 16 or less students

- facilitate the timetabling of larger groups of e-Teachers and e-Mentors across the curriculum; and

- support the logistical organisation of external services to facilitate any practical work;

3. review the provision of the curriculum and the availability of the workforce to identify priority subjects and teacher expertise to:

    - prioritise subjects in terms of likely uptake by students, and the realistic offer from schools; and

    - determine the current number of teachers available to teach these subjects through the medium of Irish;

4. where appropriate, adopt a school cluster model[18], establishing and encouraging wider e-Hub networks of Gaeltacht schools, Irish-medium Units and other schools to deliver a broader and more flexible curriculum that can be shared and accessed online;

5. negotiate and agree a common timetable and platform for the delivery of online lessons across future participating schools; and

6. for all partners (the schools, project managers, the DE and the Inspectorate) to agree and establish quality assurance arrangements and standards for planning, teaching, learning and assessment to ensure robust systems and clear lines of accountability at all levels, to monitor and evaluate the effectiveness of the online provision and the associated outcomes.

[18] Such as the Area Learning Community model of post-primary schools in Northern Ireland

Appendix 1: ETI Questionnaires issued to relevant stakeholders

SCHOOL NAME:

PLEASE RETURN COMPLETED QUESTIONNAIRE TO: ehub@education-ni.gov.uk

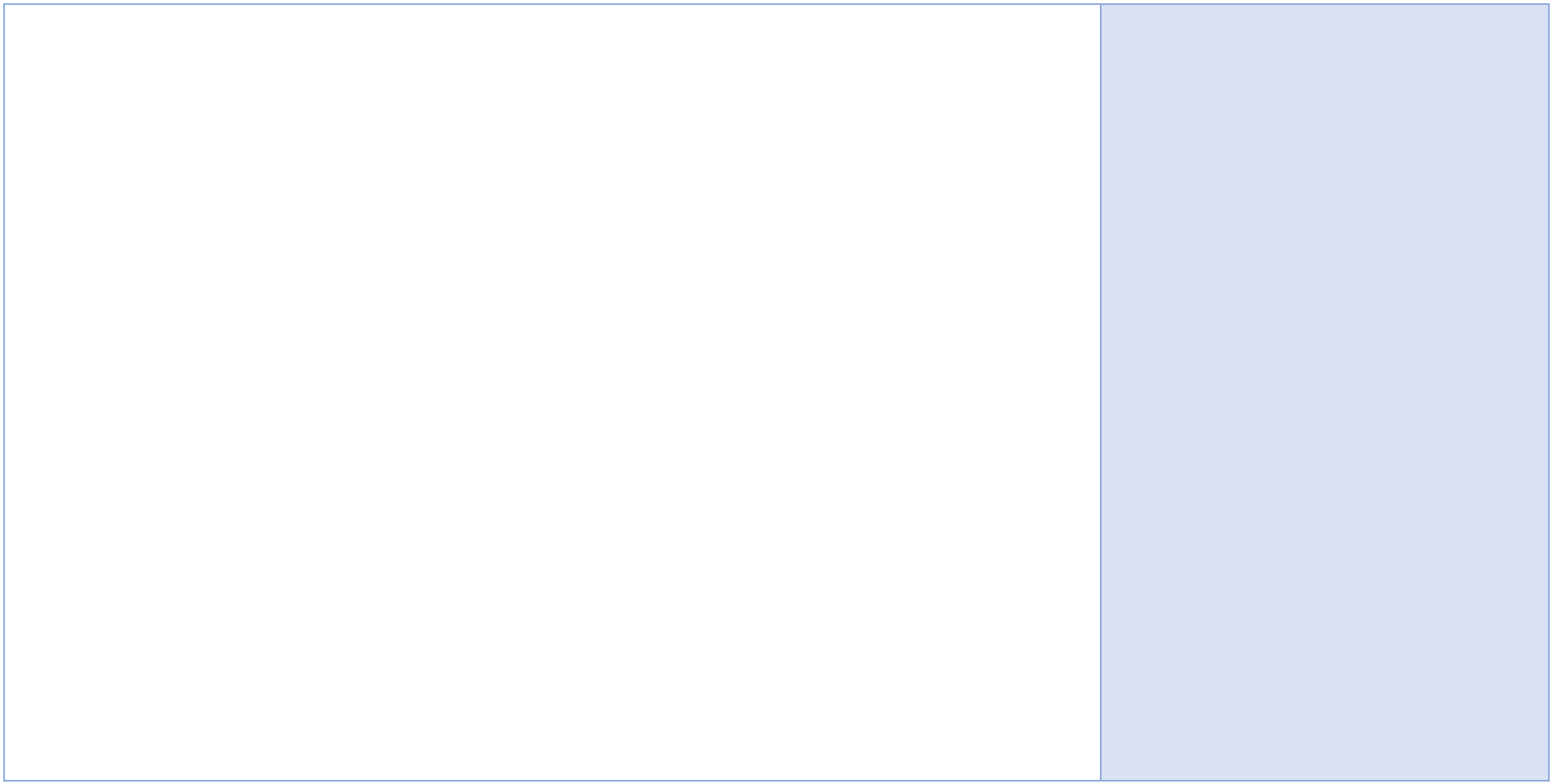
Leadership and Management Questionnaire

On behalf of the Department of Education (DE), the Education and Training Inspectorate (ETI) Northern Ireland is undertaking an evaluation of the impact of the Gaeltacht Digital e-Hub Pilot Project which offers Leaving Certificate Higher-Level Physics online through the medium of Irish to Gaeltacht students. The main aim of this work is to assess the impact of the e-Hub pilot project on students' learning and teachers' practice, as well as its potential for future development. The focus of the evaluation is to determine the effectiveness and efficiency of the Gaeltacht Digital e-Hub Pilot Project in enabling students to study Higher Level Physics through the medium of Irish online using blended learning. The evaluation will also consider how the blended-learning project might be improved further and scaled up to enhance the delivery of Irish-medium education in Gaeltacht schools and provide a model for the future use of blended-learning approaches in the wider Irish-medium sector. The key questions that you are being asked to answer in this questionnaire have been left open-ended so that you can provide a summary of what you deem to be the strengths and challenges of the particular aspect under focus. The summary should also include areas that you feel could be developed further as well as any actions that you consider necessary for the project to continue to improve. Please adjust the text response box as required.	Some self-reflective prompts are included in this column as a stimulus to help you formulate your response. It is not necessary to address all of the prompts.

Question 1: What have been the successes and challenges for your school in offering Physics through Irish online using blended learning?	
Response: (*Please adjust the text response box as required).*	*You may wish to think about:* • the impact of offering Physics through Irish through blended learning for: - students; - teachers; - timetabling; - curriculum planning; - whole-school planning (e.g. Internet Use Policy, Child Safeguarding Statement); - career/education progression; - sustainability; and - marketing and PR. • the support and resources that the Department of Education and its agencies have provided for the project; • the impact of the support on the implementation of the project; • the impact of ongoing support; • how the Department of Education and its agencies (e.g. PDST Technology) and/or H2 Learning have provided guidance to support and monitor the effective implementation of the project and outcomes to date; • any gaps in terms of supports for your school; • the working relationships between the e-Hub schools and your school during the project; • the quality of learning and teaching; • any improvements that could be made to the project;

	• whether the current arrangements for the pilot project represent value for money; • communication with parents/guardians, including parent teacher meetings; • the impact of the project on the school in general – interest generated among other students, take-up for the Leaving Cert 2020-22 class, interest among staff.

Question 2: What can we learn in relation to the future use of blended-learning approaches?	
Response:	*You may wish to think about:* • how the e-Hub pilot project could be improved; • any efficiencies that could be made; • the potential for extending the pilot project across a wider range of subjects; • the potential or value in recording lessons and offering it to other schools and/or students; • how the e-Hub project could be developed to address the issue of teacher shortages with proficiency in Irish in Physics or other subjects in Gaeltacht post-primary schools; • the potential for extending the pilot project for a wider range of Gaeltacht and Irish-medium schools, and ultimately to the broader education system. • other subjects that could/could not be delivered effectively using a blended-learning approach between the e-Hub school and receiver schools • the minimum level of equipment required in an e-Hub school where one teacher/more than one teacher deliver(s) the service to other post-primary schools • the minimum level of equipment required by receiver post-primary schools



Question 3: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on students' progress in Physics? **Please comment.**
Response:

Question4: Any further relevant advice or comments	
Response:	*You may wish to think about:* • any advice you have for other principals/ who might join the project; • general advice on improvements that could be made in relation to project implementation and extension from the perspective of the principal and teachers involved.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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e-Teacher Questionnaire

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Question 1: How have you prepared and planned for the implementation of the project?	
Response: (*Please adjust the text response box as required***)**	*You may wish to think about:* • the opportunities you have had to upskill in the development of e-pedagogy; • how you have established and maintained effective relationships across the project; • how you communicate with students, e-Mentors and receiver schools, parents/guardians, H2 Learning and the Department of Education during the course of the pilot project; • what has worked well for you in managing the preparation and delivery of blended-earning activities for this course; • how the project creates a safe digital learning space for all students and teachers; • how the e-Hub project links with the school's Internet Use Policy and Child Safeguarding Statement; • knowing what you know now, the improvements you would make.

Question 2: How effective is your planning and teaching?	
Response:	*You may wish to think about:* • the ratio of lesson preparation time to lesson delivery; • the setting of clear expectations for the blended-learning/online work and practical activities so that the students know what success will look like; • the use of clear success criteria and any other strategies to share expectations; • how you know if students are making the expected progress and learning at an appropriate pace; • the interventions you implement for individual students; • the opportunities you provide for your students to develop wider skills; • how you introduce new learning; • how you introduce and teach subject-specific terminology of a technical nature; • how you build on prior learning or students' knowledge of other related subjects; • how you connect Physics with students' real-life experiences; • how you consolidate learning; • the off-site day in the National University of Ireland, Galway (NUIG);

	• planning for other potential face-to-face learning events; • the role of the e-Mentor; • how you support the students' social and emotional well-being; • how you have encouraged students to continue to engage with the project; • how you have engaged with any student who has expressed a desire to leave the project and how you have ascertained the reasons why.

Question 3: How effective is assessment for learning and assessment of learning?	
Response:	*You may wish to think about:* • the use of holistic assessment tasks, in developing the core skills and concepts in Physics; • the use of holistic assessment tasks, in developing Irish language skills including subject specific vocabulary; • the use of feedback/dialogue to encourage reflection, correction and extension of learning and to promote well-being; • the facilitation of students' feedback, responses and views; • the impact of the digital environment in supporting students working collaboratively on projects and discussion tasks; • the effectiveness of the digital environment in facilitating the assessment of learning; • the effectiveness of student preparation for the Leaving Certificate Physics examination; • your expectations on what percentage of students will answer the Leaving Certificate Physics examination through Irish or English.

Question 4: How are the students supported with their learning?	
Response:	*You may wish to think about:* • how you support students who have learning difficulties in online Physics lessons through the medium of Irish; • the pupils' skills and dispositions, and levels of independence and resilience for distance learning; • students leading their own learning; • the baseline measures for the cohort for example - mathematical ability and overall ability; • students setting and reviewing their own targets for improvement; • how you measure your students' progress over time; • communication with parents/guardians, including parent-teacher meetings.

Question 5: How have used the advice and practical support provided by the H2 Learning team?	
Response:	*You may wish to think about:* • any advice and practical support you have received; • any examples of good practices shared by H2 in relation to online teaching and learning and assessment; • any examples of appropriate digital learning technologies shared by H2; • any examples of digital content providers shared by H2 in order to source appropriate content for translation/adaptation; • what advice and support teachers new to this way of working might need; • how this project could be developed and supported to include other subjects.

Question 6: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on students' progress in Physics? Please comment.
Response:

Question 7: Any further relevant advice or comments	
Response:	*You may wish to think about:* • any advice you have for teachers of Physics or other subjects who might join the blended-learning project; • other subjects that could/could not be delivered effectively using a blended-learning approach between the e-Hub school and receiver schools; • the minimum level of equipment required in an e-Hub school where one teacher/more than one teacher deliver(s) the service to other post-primary schools; • general advice on improvements that could be made in relation to project implementation and extension from the perspective of the teachers involved;

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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e-Mentor Questionnaire

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Question 1: How effective is your mentoring?	
Response: (*Please adjust the text response box as required***)**	*You may wish to think about:* • how you communicate with students, e-Teachers, and parents/guardians; • how you help build the students' confidence and competence to access and submit work in a blended-learning environment; • how you deal with any concerns the e-Teachers may have about student attendance, punctuality, participation or performance; completion and submission of tasks, homework and assessments; • how you support any gaps in the learning of an individual student in the event of his/her absence from an online lesson; • how you raise and communicate any concerns that you may have; • how you support the work of the e-Teacher in maintaining assessment and progress records for participating students; • how you use feedback/dialogue to encourage reflection, correction and extension of learning and to promote well-being; • how you support the e-Teachers in liaising/communicating with parents/guardians;

	• how you facilitate the students to access technical support; • how you deal with and communicate issues relating to student engagement or behaviour; • how you support the students' social and emotional well-being; • how you encourage students to become self-managing independent learners; • how you track student progress; • the interventions you implement and/or support you provide for individual students; • how you have engaged with any student who has expressed a desire to leave the project and how you have ascertained the reasons why; • how you support students who have learning difficulties in blended-learning Physics lessons through the medium of Irish e.g. Irish-language terminology; • how you use feedback/dialogue to encourage reflection, correction and extension of learning and to promote well-being; • how the e-Hub project links with the school's Internet Use Policy and Child Safeguarding Statement; • knowing what you know now, the improvements you would make;

	• the opportunities you have had to upskill in e-pedagogy.

Question 2: In relation to the e-Hub pilot project blended-learning experience, do you have any concerns about the impact of the current pandemic on students' progress in Physics? Please comment.
Response:

Question 3: Any further relevant advice or comments	
Response:	*You may wish to think about:* • any advice you have for e-Mentors of Physics or other subjects who might join the blended-learning project; • other subjects that could/could not be delivered effectively using a blended-learning approach between the e-Hub school and receiver schools; • the minimum level of equipment required by receiver post-primary schools. • general advice on improvements that could be made in relation to project implementation and extension.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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SCHOOL NAME:

PLEASE RETURN COMPLETED QUESTIONNAIRE TO: ehub@education-ni.gov.uk

Parent Questionnaire

On behalf of the Department of Education (DE), the Education and Training Inspectorate (ETI) Northern Ireland is undertaking an evaluation of the impact of the Gaeltacht Digital e-Hub Pilot Project which offers Leaving Certificate Higher-Level Physics online through the medium of Irish to Gaeltacht students. The main aim of this work is to assess the impact of the e-Hub pilot project on students' learning and teachers' practice, as well as its potential for future development. The focus of the evaluation is to determine the effectiveness and efficiency of the Gaeltacht Digital e-Hub Pilot Project in enabling students to study Higher Level Physics through the medium of Irish online using blended learning. The evaluation will also consider how the blended-learning project might be improved further and scaled up to enhance the delivery of Irish-medium education in Gaeltacht schools and provide a model for the future use of blended-learning approaches in the wider Irish-medium sector.

The key questions in this questionnaire are based upon your opinion of your child's experience of the project to date. In Section 1 you are asked to make a response by ticking your level of agreement with statements 1 to 26. In Section 2, you are asked to make a response in light of Covid-19. Finally, in Section 3 you are asked to make any other comments you deem relevant including about areas that you feel could be developed further as well as any actions that you consider necessary for the project to continue to improve.

Please adjust the text response box as required.

Section 1	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know
1. The e-Hub pilot project for Leaving Certificate Physics appears to be well led and managed, at all levels.					
2. My child participates in this Physics course through the medium of Irish, with confidence.					
3. My child was able to engage with the Irish language terminology in Leaving Certificate Physics.					
4. My child is making good progress.					
5. I receive helpful and regular information about my child's progress.					
6. The principal/e-Teacher or e-Mentor in the school has explained to me how I can help my child with his / her learning.					
7. My child knows what to do if finding any aspect of the work too difficult.					
8. My child feels well supported while learning Physics online through Irish.					
9. I have no concerns about the amount of work set.					
10. I have no concerns about the quality of the learning experiences.					
11. My child enjoys learning Physics online through the medium of Irish.					
12. The learning and teaching experiences provided are well matched to my child's ability, interests, needs and future learning/career plans.					

13. My child benefited from the practical activities/experiments/social interaction experience etc. during the visit to the National University of Ireland (NUI), Galway.					
14. My child would benefit from more face-to-face activities as part of this course.					
15. The e-Teacher(s) and/or e-Mentor support(s) the care and social and emotional well-being of my child.					
16. The school has informed me about how to report a safeguarding/child protection matter, should it ever arise, in relation to this course.					
17. The school has informed me about how to report any concerns/complaints I may have in relation to this course.					
18. The e-Teachers with the support of the e-Mentor help to address any difficulties my child has with learning.					
19. The e-Teachers with the support of the e-Mentor help with any technical issues/online access.					
20. The internet connection at home is reliable enough to support home learning.					
21. My child has been able to submit homework online without any difficulty.					
22. My child receives helpful feedback from staff on how to progress.					
23. The e-Teachers with the support of the e-Mentor help my child to prepare for the future, in particular, for the next stage of learning.					
24. This blended-learning Physics course has had a positive impact on the development of my child's Irish language skills, both spoken and written.					
25. This teaching method has potential for the teaching of other subjects through the medium of Irish where the subject is not on offer for students in a school.					
26. Overall, I am happy with my child's experiences of the e-Hub pilot project whilst studying Leaving Certificate Physics.					

Section 2: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on your child's progress in Physics. **Please comment.**
Response:

Section 3: Any further relevant advice or comments	
Response:	*You may wish to think about:* • any advice you have for the parents of students who may be taught this way in the future; • how the pilot e-Hub project could be improved further.

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If you raise a concern about child protection or safeguarding, the ETI will have to share this with the school. If you have an urgent concern about your safety or well-being, please speak to the Designated Teacher in your school or another adult whom you trust.

Student Questionnaire

On behalf of the Department of Education (DE), the Education and Training Inspectorate (ETI) Northern Ireland is undertaking an evaluation of the impact of the Gaeltacht Digital e-Hub Pilot Project which offers Leaving Certificate Higher-Level Physics online through the medium of Irish to Gaeltacht students. The main aim of this work is to assess the impact of the e-Hub pilot project on students' learning and teachers' practice, as well as its potential for future development. The focus of the evaluation is to determine the effectiveness and efficiency of the Gaeltacht Digital e-Hub Pilot Project in enabling students to study Higher Level Physics through the medium of Irish online using blended learning. The evaluation will also consider how the blended-learning project might be improved further and scaled up to enhance the delivery of Irish-medium education in Gaeltacht schools and provide a model for the future use of blended-learning approaches in the wider Irish-medium sector. The key questions that you are being asked to answer in this questionnaire have been left open-ended so that you can provide a summary of what you deem to be the strengths and challenges of the particular aspect under focus. The summary should also include areas that you feel could be developed further as well as any actions that you consider necessary for the project to continue to improve. Please adjust the text response box as required.	Some self-reflective prompts are included in this column as a stimulus to help you formulate your response. It is not necessary to address all of the prompts.

Question 1: How do online lessons in Physics compare to in-class lessons in other subjects?	
Response: (*Please adjust the text response box as required***)**	*You may wish to think about:* • the pace of the work; • the access you have to resources to help you with your learning; • your levels of motivation; • your levels of confidence; • your levels of independence; • how organised you are; • any online learning strategies and activities that help you learn; • the effectiveness of online communication during lessons between the teacher and students.

Question 2: How do you know that you are making good progress in your learning?	
Response:	*You may wish to think about:* • how you know what is expected of you in Physics; • how your teachers share the intended learning with you; • how you know what you have to do to be successful; • how teachers support you when learning a new topic; • what you can do if you are stuck; • how your e-Mentor supports you in your learning; • the opportunities you have to set and review your own learning targets; • strategies you have to self-assess your own work and progress.

Question 3: How do assessment and feedback from your teachers help you with your learning?	
Response:	*You may wish to think about:* • the different types of assessment tasks that your teachers set, for example, investigations, projects, research-based enquiries; • how assessment helps you consolidate your learning; • the types of feedback you get; • how you use the feedback to improve; • your intention to answer the Leaving Certificate Physics written examination through Irish or English and your reasons.

Question 4: What have been the successes and challenges for you in learning Physics through Irish online?	
Response:	*You may wish to think about:* • whether you like this way of learning; • whether learning Physics online has helped you with your other subjects; • any other subjects you would have liked to have studied this way; • any other subjects that would be best suited to be taught and learnt this way; • the off-site day in the National University of Ireland, Galway (NUIG); • the impact of this course on your Irish; • how your knowledge of Irish-medium technical terminology relating to Physics has improved.

Question 5: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on your progress in Physics? Please comment.
Response:

Question 6: Any further relevant recommendations or comments	
Response:	*You may wish to think about:* • any advice you have for students who might wish to participate in blended/online learning in this project; • general advice on improvements that could be made in relation to the project from the perspective of students.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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SCHOOL NAME:

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If you raise a concern about child protection or safeguarding, the ETI will have to share this with the school. If you have an urgent concern about your safety or well-being, please speak to the Designated Teacher in your school or another adult whom you trust.

Student Questionnaire

On behalf of the Department of Education (DE), the Education and Training Inspectorate (ETI) Northern Ireland is undertaking an evaluation of the impact of the Gaeltacht Digital e-Hub Pilot Project which offers Leaving Certificate Higher-Level Physics online through the medium of Irish to Gaeltacht students. The main aim of this work is to assess the impact of the e-Hub pilot project on students' learning and teachers' practice, as well as its potential for future development. The focus of the evaluation is to determine the effectiveness and efficiency of the Gaeltacht Digital e-Hub Pilot Project in enabling students to study Higher Level Physics through the medium of Irish online using blended learning. The evaluation will also consider how the blended-learning project might be improved further and scaled up to enhance the delivery of Irish-medium education in Gaeltacht schools and provide a model for the future use of blended-learning approaches in the wider Irish-medium sector. The key questions that you are being asked to answer in this questionnaire have been left open-ended so that you can provide a summary of what you deem to be the strengths and challenges of the particular aspect under focus. The summary should also include areas that you feel could be developed further as well as any actions that you consider necessary for the project to continue to improve. Please adjust the text response box as required.	Some self-reflective prompts are included in this column as a stimulus to help you formulate your response. It is not necessary to address all of the prompts.

Question 1: How do online lessons in Physics compare to in-class lessons in other subjects?	
Response: (*Please adjust the text response box as required***)**	*You may wish to think about:* • the pace of the work; • the access you have to resources to help you with your learning; • your levels of motivation; • your levels of confidence; • your levels of independence; • how organised you are; • any online learning strategies and activities that help you learn; • the effectiveness of online communication during lessons between the teacher and students.

Question 2: How do you know that you are making good progress in your learning?	
Response:	*You may wish to think about:* • how you know what is expected of you in Physics; • how your teachers share the intended learning with you; • how you know what you have to do to be successful; • how teachers support you when learning a new topic; • what you can do if you are stuck; • how your e-Mentor supports you in your learning; • the opportunities you have to set and review your own learning targets; • strategies you have to self-assess your own work and progress.

Question 3: How do assessment and feedback from your teachers help you with your learning?	
Response:	*You may wish to think about:* • the different types of assessment tasks that your teachers set, for example, investigations, projects, research-based enquiries; • how assessment helps you consolidate your learning; • the types of feedback you get; • how you use the feedback to improve; • your intention to answer the Leaving Certificate Physics written examination through Irish or English and your reasons.

Question 4: What have been the successes and challenges for you in learning Physics through Irish online?	
Response:	*You may wish to think about:* • whether you like this way of learning; • whether learning Physics online has helped you with your other subjects; • any other subjects you would have liked to have studied this way; • any other subjects that would be best suited to be taught and learnt this way; • the off-site day in the National University of Ireland, Galway (NUIG); • the impact of this course on your Irish; • how your knowledge of Irish-medium technical terminology relating to Physics has improved.

Question 5: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on your progress in Physics? Please comment.
Response:

Question 6: Any further relevant recommendations or comments	
Response:	*You may wish to think about:* • any advice you have for students who might wish to participate in blended/online learning in this project; • general advice on improvements that could be made in relation to the project from the perspective of students.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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SCHOOL NAME:

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Questionnaire for H2 Learning

On behalf of the Department of Education (DE), the Education and Training Inspectorate (ETI) Northern Ireland is undertaking an evaluation of the impact of the Gaeltacht Digital e-Hub Pilot Project which offers Leaving Certificate Higher-Level Physics online through the medium of Irish to Gaeltacht students. The main aim of this work is to assess the impact of the e-Hub pilot project on students' learning and teachers' practice, as well as its potential for future development. The focus of the evaluation is to determine the effectiveness and efficiency of the Gaeltacht Digital e-Hub Pilot Project in enabling students to study Higher Level Physics through the medium of Irish online using blended learning. The evaluation will also consider how the blended-learning project might be improved further and scaled up to enhance the delivery of Irish-medium education in Gaeltacht schools and provide a model for the future use of blended-learning approaches in the wider Irish-medium sector. The key questions that you are being asked to answer in this questionnaire have been left open-ended so that you can provide a summary of what you deem to be the strengths and challenges of the particular aspect under focus. The summary should also include areas that you feel could be developed further as well as any actions that you consider necessary for the project to continue to improve. Please adjust the text response box as required.	Some self-reflective prompts are included in this column as a stimulus to help you formulate your response. It is not necessary to address all of the prompts.

Question 1: What advice and support have you provided for the planning and implementation of the e-Hub pilot project?	
Response: (*Please adjust the text response box as required).*	*You may wish to think about:* • the logistical support and advice you have provided to the e-Teachers and the e-Mentors in receiver schools; • digital learning technologies you have recommended for use in the pilot project; • digital content providers you have recommended to source appropriate content for translation/adaptation; • how you have facilitated relationships between the e-Hub schools, receiver schools and the Department of Education; • advice you have provided to e-Teachers/ e-Mentors in relation to classroom and/or whole-school planning (e.g. Internet Use Policy, Child Safeguarding Statement); • examples of effective practices in relation to blended and online learning that you have recommended.

Question 2: How effective is your advice and support?	
Response:	*You may wish to think about:* • how you have monitored the effectiveness of your support and advice on the planning and implementation of this project; • any feedback you have received from schools, teachers, students, the Department of Education, and any actions you have taken on the basis of that feedback; • how you have adapted the support as the project develops and outcomes emerge; • any gaps that you have identified in terms of support and advice; • whether current arrangements for this pilot project represent value for money.

Question 3: What can we learn in relation to the future use of blended-learning approaches?	
Response:	*You may wish to think about:* • how the pilot project could be improved; • any efficiencies that could be made • the potential or value of recording lessons for future use; • the potential for extending the pilot project across a wider range of subjects; • how the e-Hub project could be developed to address the shortage of teachers with proficiency in Irish in subjects such as Physics in Gaeltacht post-primary schools; • the potential for extending the project for a wider range of Gaeltacht and Irish-medium schools, and ultimately to the broader education system; • other subjects that could/could not be delivered effectively using a blended-learning approach between the e-Hub school and receiver schools; • the minimum level of equipment required in an e-Hub school where one teacher/more than one teacher deliver(s) the service to other post-primary schools; • the minimum level of equipment required by receiver post-primary schools;

	• any feedback you have received from schools, e-Teachers, e-Mentors, students, Department of Education and any actions you have taken on the basis of that feedback.

Question 4: In relation to the e-Hub blended-learning experience, do you have any concerns about the impact of the current pandemic on the pilot project? Please comment.
Response:

Question 5: Any further relevant advice or comments	
Response:	*You may wish to think about:* • general advice on improvements that could be made in relation to project implementation and extension from the perspective of the Department of Education and schools involved.

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

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Appendix 2: Requirements and roles of e-Teacher and e-Mentor

Requirements and roles of the e-Teacher and e-Mentor for the e-Hub Pilot Project through the medium of Irish in post-primary schools in the Gaeltacht as set out by DE.

The e-Teacher:

- must be a registered post-primary teacher who has experience in teaching physics through Irish at Leaving Certificate higher level;
- must have a high level of proficiency in oral and written Irish;
- must be based in his/her own school, which will become a hub or e-school; and
- will be released from his/her existing teaching duties for 11 hours per week to allow for dedicated time to prepare online content, to develop and teach e-lessons, and engage in related activities.[19]

The e-teacher's role is to:

- participate in an online professional development programme focused on teaching and learning online through the medium of Irish from September 2018;

[19] A total of 15 additional teaching hours per week is allocated to the e-Hub schools in respect of each e-teacher. Initially this consisted of 11 hours specifically for the release of the e-teacher and 4 hours to be used at the discretion of the principal of the school to support project implementation. During project rollout it was agreed that the full 15 hours would be allocated to certain e-teachers to support the professional development of a new e-teacher and the delivery of the programme to a second cohort of students. The level of the allocation of the additional hours to support project implementation is kept under review.

- identify interesting topics for TY physics sample modules;
- identify a range of existing resources that teachers and students can use;
- design a range of teaching, learning and assessment approaches and activities;
- act as a sounding board in the creation of a vibrant online course for the teaching of Leaving Certificate higher-level Physics through the medium of Irish;
- deliver TY physics sample modules through an online environment during the Pre-Pilot Readiness Phase (2018-2019);
- deliver the Leaving Cert Higher-Level Physics course through an online environment during the Pilot Phase (2019-2020, 2020-2021) to a maximum of 15 or 16 students in a small number of post-primary schools (including the teaching of online lessons, feedback to students, formative assessment of students' work and end-of-term tests, etc.); and
- collaborate with and provide ongoing feedback to the e-Hub development team.

E-mentor requirements:

The e-Mentor should, insofar as possible, hold a qualification in Science or Mathematics and precedence should be given by the school to the post-primary teacher thus qualified in the event of expressions of interest being received from a number of post-primary teachers for the role.

The role of e-Mentor serves an important function in the partnership between the participating post-primary schools, e-Teacher(s) and students. The e-Mentor provides onsite support for students to ensure they can successfully participate in the Higher-Level Leaving Certificate Physics course.

The e-Mentor role is to:

- Communicate with the e-Teacher(s), participating students and their parents, as required;
- Ensure that participating students are comfortable with the processes established for accessing work, communicating issues and submitting work;
- Ensure participating students can access technical support as required;
- Deal with any concerns the e-Teacher may raise about student participation or performance;
- Notify the e-Teacher of any issues relating to the students' engagement, behaviour or communications from teachers and/or parents;
- Where behavioural or work issues arise, ensure that these are processed through the school's pastoral care system and ensure that there is follow through;
- Provide guidance to students on how to become self-managing independent learners; and
- Monitor and track student progress on a regular basis.

Note: The following links on the DE website provide further relevant information on the e-Hub pilot project:

Information-note-for-schools-and-application-form-e-hub-pilot-project

Information-for-students-and-parents-e-hub-pilot-project

Copies of this report are available on the ETI website: www.etini.gov.uk

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