

Impact case study (REF3)

Institution: Ulster University		
Unit of Assessment: Modern Languages and Linguistics (26)		
Title of case study: Transforming Irish language teaching across Europe: New digital tools for teachers and learners		
Period when the underpinning research was undertaken: 2006 - 2016		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Caoimhín Ó Dónaill	Senior Lecturer in Irish	2003 - present
Period when the claimed impact occurred: August 2013 - 2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact</p> <p>Since 2006, Ó Dónaill designed and developed open educational resources utilising new technology. He removed barriers to accessing authentic learning materials and provided content and technical guidance for Irish language teachers and learners.</p> <p>I1: Catalysing the shift to digital teaching and learning of Irish. A transformative open digital platform, CLILSTORE.eu, was created and exploited by over 5,500 learners.</p> <p>I2: Accelerating the shift to digital teaching. Developing training programmes incorporating technical guidance in language pedagogy and know-how in the creation of multimedia resources for over 30 EU practitioners.</p> <p>I3: Sustaining innovation by creating a new Community of Practice. Creating a varied Community of Practice contributing to the creation and promotion of authentic, digital Irish and Scottish Gaelic linguistic data. The synergy between R&D in language learning and direct stakeholder engagement has produced tangible benefits for the target end user groups during the reporting period.</p>		
<p>2. Underpinning research</p> <p>During the 2000s Ulster steadily established its credentials in the international community of practitioners with its sector-leading work in computer assisted language learning (CALL). During the census period we have been able to broaden and strengthen our expertise in that area. In Irish language teaching and learning, Ó Dónaill focused on how the field is served by CALL. His 2006 paper co-authored with Mac Coinnigh (Ulster 2003-2007) (R1), established how delivering target language content multimodally had the potential to improve how Irish language learners retain vocabulary.</p> <p>Lack of progression in written and spoken ability, especially among Year 1 Undergraduates, a lack of active participation during tutorials and conversation classes, and the dearth of suitable resources for teaching the language within a HE setting and for independent study influenced Ó Dónaill's investigation between 2006 and 2009 (R2) of effective practice in CALL, covering the design of learning spaces; methods for facilitating productive interrogation of authentic speech content; peer collaboration; and the use of automated feedback.</p> <p>Dissemination of the research summarised in (R2), via presentations, bespoke task-based learning workshops, and presentations at international conferences, led Ó Dónaill to join with CALL researchers in other European countries (Denmark, Scotland, Spain, Portugal, Lithuania and Belgium) to design the TOOLS for CLIL Teachers project.</p> <p>Ó Dónaill's 2013 paper (R3) demonstrated how the new pedagogical and technological interventions developed by the TOOLS project were indeed effective. It reported on research trials that tested the efficacy of autonomous and social learning tasks where learners engaged with sample materials that combined audio-visual language content, cognitive challenges and vocabulary scaffolding tools. The rationale for this experiment was rooted in constructivist learning theory. R3 validated the proposition that basing autonomous language materials on authentic, real-world content is a key factor in motivating learners to engage with socially contextualised language and so achieve better learning gain.</p> <p>The above research also demonstrated the benefits of extending the application of task-based learning theory to models of Content and Language Integrated learning (CLIL) delivery. In 2013,</p>		

along with colleagues from two partner institutions (UPV Spain and SDE College Denmark), Ó Dónaill designed and delivered a comprehensive technical and theoretical training course to 30 primary and secondary level teachers from across Europe. The course curriculum drew on insights gained by the designers from previous training workshops in the TOOLS project; there, trainees had revealed critical gaps in their background knowledge about CALL, CLIL and second language acquisition theory which had prevented them from fully engaging with the learning technology potential of CLILSTORE, the Open Educational Resource (OER) developed by the TOOLS for CLIL Teachers project. CLILSTORE serves as a repository of open access materials and an authoring tool that enables educators to create multimedia learning units combining audio, video, text, images and Web 3.0 applications such as self-correcting comprehension tasks. The authoring software helps to underpin learner autonomy by the way it treats embedded texts. Typescripts of audio or audio-visual recordings are automatically linked word for word to a nexus of online dictionaries that helps learners boost their reading skills. (R4) shows how this course helped to advance CLIL in Europe and to underpin subsequent EU projects and CLIL training programmes. In particular, the study confirmed that teachers were willing to adopt CLIL in their classes and that CLILSTORE was perceived as a key tool for creating and sharing scaffolded learning materials.

3. References to the research Outputs can be supplied by Ulster University on request.

R1: Ó Dónaill, C. & Mac Coinnigh, M. (2007) 'The Use of CALL in Irish Language Teaching: The Way Forward?'. *Computer Assisted Language Learning. An International Journal*, pp. 287-300.

R2: Ó Dónaill, C. (2009) 'Teagasc Ríomhchuidithe Teangacha: An Cur Chuige in Ollscoil Uladh', in Ní Fhrighil, F. & Nic Eoin M. (eds) *Ó Theagasc Teanga go Sealbhú Teanga: Múineadh agus Foghlaim na Gaeilge ar an Tríú Leibhéal*. Baile Átha Cliath: Cois Life, pp. 122-138.

R3: Ó Dónaill, Caoimhín (2013) 'Multimedia-assisted Content and Language Integrated Learning'. *Multimedia-Assisted Language Learning*, 16, pp. 11-39.

R4: Gimeno-Sanz, A., Ó Dónaill, C., & Andersen, K. (2014). 'Supporting Content and Language Integrated Learning through Technology'. *CALL Design: Principles and Practice - Proceedings of the 2014 EUROCALL Conference*. Dublin: Research Publishing, pp. 107-112.

The above references have been subject to blind peer review practice by international editorial boards. R1 and R3 were published by internationally leading CALL journals; R2 and R4 developed from plenaries.

Supporting grants:

(1) European Commission/Lifelong Learning Programme: **TOOLS for CLIL Teachers:** GBP41,470 (total amount awarded EUR400,000, 2012-2014)

(2) European Commission/Leonardo da Vinci: **Producing Open Online Learning Systems 3 (POOLS3):** GBP64,983 (total amount awarded EUR288,621, 2013-2016)

(3) Colmcille/Foras na Gaeilge: **Guthanna na nOileán 1 & 2:** GBP9,750 (2013-2014)

4. Details of the impact

Ó Dónaill was commissioned to develop projects that have benefitted end users across from four educational sectors: Primary, Secondary, Higher Education (HE) and Further Education (FE). He developed open educational resources utilising new technology. He removed barriers to accessing authentic learning materials and provided content and technical guidance for language teachers and learners of Irish.

I1: Catalysing the shift to digital teaching and learning of Irish

The TOOLS project (2012-2014) developed CLILSTORE, an OER that enables teachers to author multimedia learning units using online software and share units via a materials repository. Units typically feature audio or audio-visual content and verbatim transcripts. CLILSTORE links all words in transcripts to online dictionaries via a bespoke multi-dictionary interface, also developed by the project. Insights from **R1** and **R2** on multimodal and task-based learning were incorporated during the design phase. This new OER has now been employed by a wide target audience, as a result of the comprehensive technical guides, training workshops and dissemination carried out by Ó Dónaill and partners in the project consortium. The project outputs were assessed by ALB CONSEIL (an external evaluation consultancy based in Belgium) who concluded that: "The added value of the results for the real needs of the 3 planned education sectors and additional for Comenius sector, the impact due to intensive dissemination and exploitation results across EU and on other continents, the proved sustainability beyond the funded lifetime of the project, the

synergies with other EU-funded projects, networks and stakeholders of languages learning, all these make the project TOOLS a candidate for best practice in languages projects and innovation in education” (C1, pg.14).

The European Commission’s Education, Audio-visual and Culture Executive Agency awarded the project a score of 9/10 in its final evaluation of the project (C1, pg.1). The final project report submitted in September 2014 included details of 584 registered users. As a result of sustained dissemination and peer-to-peer knowledge transfer, CLILSTORE has continued to recruit new authors, with the system now having 4,552 registered users. By 31/12/2020, 7,428 learning units in approximately 30 languages had been created covering approximately 40 countries, incorporating the EEA, East Asia, the Americas and Australasia. The learning units have generated 3,816,282 views to date and 644,797 dictionary consultations have been performed. 327 units for Irish had been created, which have generated 252,742 views to date and 108,387 dictionary consultations.

In 2016, the EC selected TOOLS as an Erasmus Success Story and Best Practice example. The EC continues to promote the project to stakeholders in language education via its website (C2). This recognition has assisted with growth in new users among teachers who require a free and effective content authoring system for bespoke language learning materials. Core members of the TOOLS project, including Ó Dónaill, successfully bid for EUR348,438 (09-2018) in funding from the European Commission in 2017 to further develop CLILSTORE via the CLIL Open Online Learning Project. The application evaluation report summarised the project’s significance and acknowledged the strong legacy of the TOOLS project:

“The project addresses European policies in relation to the modernization of education, improving of the quality of educators and optimising the learning outcomes of students via CLIL methodology. The objectives are clearly established and, given the profile of the partners, are achievable. The transnational dimension clearly adds value. The quality of the consortium is very high, given their complementary profiles and their previous experience in common projects related to the current one. The management plan is complete and described in detail. The results have the potential to be transferred and exploited in other European countries through the English language. The dissemination plan is effective and is supported by the EuroCALL organization. The sustainability of the platform is guaranteed after the end of the project, as has happened with the previous TOOLS Project (2014). This project incorporates a significant upgrade to CLILSTORE” (C3, translation of original Spanish text).

In February 2021 an end user survey was circulated to a sample group of registered users of CLILSTORE from all target educational sectors to analyse the impact of the tool from 2014 to 2020. Analysis of the responses shows that a clear majority of the respondents view CLILSTORE as an indispensable tool that they rely on to scaffold learning for their students. They also praised CLILSTORE for helping them transition from paper-based and analogue resources to adopting more productive technology-enhanced learning methods. A cross-section of educational practitioners who had registered with CLILSTORE was invited to provide feedback on a range of factors relating to the OER’s functionality and the impact it had made to their professional practice. There were 61 responses with a sectoral breakdown of Secondary = 36%; HE = 28%; FE = 27%; Other (Primary, Community) = 9%.

Exploitation: 50% of respondents use the OER to create learning units for students, while a further 36% both employ existing units and create new units for their classes. **Uniqueness:** 41% of users reported they would not be able to replicate the functionality of CLILSTORE by using other software solutions, while also confirming that the learning outcomes of their students improved through their advocacy of CLILSTORE. **Innovation:** 80% agreed the resource supports innovation, with 60% of respondents confirming that they had gained new ideas from using the resource, and 53% reporting they were able to promote independent learning for their students *“in a way not previously possible”*. **Awareness:** 64% of the users agreed that using CLILSTORE supports intercultural awareness. Open feedback responses further commended the resource e.g. *“[CLILSTORE offers] the opportunity to have a huge selection of subject matters of your interest”* and *“[CLILSTORE] has a lot of potential for increasing students’ interaction with the target language independently” (C5).*

I2: Accelerating the shift to digital teaching

In 2014, with two colleagues from the TOOLS project, Ó Dónaill designed a theoretical and practical training programme based on the project outputs. They trialled this 2-week course in

August 2014 with 30 primary and secondary teachers at Executive Training Institute, Malta (ETI). The course was approved by Comenius, who funded teachers to participate. A post-course survey demonstrated the course had successfully achieved its learning goals:

“Regarding the degree of confidence in applying CLIL after taking the course...over 65% of the participants perceive CLIL as an optimal methodology to teach both content and language. The participants’ confidence to provide multimodal input and distribute it evenly across their CLIL units increased to...nearly 90%. Self-confidence in being able to incline the balance towards student-centred learning rather than teacher-centred learning was another of the attributes where the course had helped participants gain assertiveness: very confident (33.33%) and confident (51.85%), adding up to a total of 85% of the participants. Additionally, 77.8% of the respondents claimed that the introductory course on CLIL and the use of CLILSTORE had changed their views on teacher-centred versus learner-centred learning.” (R4, pg. 111).

Based on the continuing demand for dedicated CLIL training for teachers in Europe, ETI adopted the course, embedding it fully into its provision. By July 2020 ETI had trained 764 teachers from 30 different countries in CLIL methodology and how to use CLILSTORE (C8). ETI reports that the adoption of the TOOLS training programme has enabled it to become a key stakeholder in CLIL teacher training across Europe:

“Since adopting the CLIL pilot course ETI has revised and adapted it to suit the changing needs of students, while still retaining the core elements of CLIL theory training and materials authoring using CLILSTORE. Collaborating with the TOOLS Project has been a game changer for ETI. As the uptake of CLIL methodology has grown across Europe we have been able to pivot and align our taught programmes to meet the training needs that have resulted from that growth” (C8).

Teachers using CLILSTORE report that it enables them to significantly improve the learning gains of their students, particularly regarding vocabulary acquisition and aural comprehension (C5). An external evaluator concluded that the TOOLS project successfully addressed the dearth of user-friendly authoring software designed especially for teachers, stimulating their methodological *“shift from passive consumption of ready-made programmes to independent building of content, tailor made for specific groups or individuals” (C1)*. CLILSTORE *“provided the students with a platform which they can draw upon when mastering the language, not only during the autumn and spring academic semesters, but also when they are continuing to study the language as independent learners” (C10)*.

From 2009 to 2013 a taskforce of HE practitioners designed a new international syllabus for Irish language undergraduates. Ó Dónaill's research insights (R2) influenced the design of the syllabus based on the Common European Framework of Reference for Languages and he additionally led a 'digital first' approach to disseminating the syllabus. The syllabus includes technical and pedagogical guidance for teachers and audio and video materials that can be used directly from the site (teagascnagaeilge.ie), which is hosted by Ulster. Since August 2013, this resource has been used continuously by 17 third level institutions in Ireland, EU and the USA, where it has improved learner attainment and engagement with Irish (C7, C10). For example, a director of Celtic Languages and Literatures programmes at UBO Brest confirmed that the syllabus was *“a life-saver for the modern language component”* of the programme enabling them to *“advise the Irish teaching assistants as to the syllabus they could use in terms of clearly set learning outcomes and lessons plans” (C10)*.

I3: Sustaining innovation by creating a new Community of Practice

Based on findings from R3 on the benefits of repurposing audio and video content to make authentic language learning units, Ó Dónaill launched further initiatives to expand the Irish language materials in CLILSTORE.

(1) In 2014 he established a partnership with Irish national broadcaster RTÉ to develop media initiatives to contribute to the advancement of the Government of Ireland's 20 Year Irish Language Strategy (C9, p.89). Through this partnership Ó Dónaill has created CLILSTORE units utilising recordings from RTÉ's archive, thereby revitalising its approach to radio content and providing educational opportunities to the audience. This has benefitted learners of Irish in Ireland and internationally (in France, C10, and the USA, C7) to engage more successfully with native speaker dialects: *“since 2016, I have commended these resources to my undergraduate and graduate students and I have noticed how [CLILSTORE] has expanded its Irish language resources. Although my students can access a variety of Irish language radio stations via the*

internet, nonetheless, comprehending native speakers talking at full live pace remains a challenge. Taking recordings offline and slowing them down certainly helps a little, but the blend of native/natural speech combined with transcripts linked to dictionaries in [CLILSTORE] really opens doors to understanding. My students also like the variety of materials, such as the folklore, the films shot on location in Donegal and Scotland, the authentic Raidió na Gaeltachta interviews and, in particular, the Irish Poetry units produced by our Colleagues at Dublin City University”, as stated by the Director of University of Notre Dame’s Centre for Languages (C7).

(2) To explore new models for producing authentic content, Ó Dónaill obtained GBP9,750 in Foras na Gaeilge funding to establish a cultural exchange between inhabitants of Irish and Scottish Gaelic speaking areas in Donegal and Benbecula. Building on the findings from the Tools for CLIL Teachers project (R3), as well as on a pilot residential in Ireland (March 2013), a workshop was developed and held in Scotland in October 2014. During the workshop Ó Dónaill led the filming of culturally enriching encounters featuring speakers from both communities.

(3) Co-produced cultural artefacts based on the workshop recordings were edited and published online. A selection of the films was additionally used to make a series of CLILSTORE units that have been well used since 2014 and have resonated strongly with learners of Irish and Scottish Gaelic (C7). Foras na Gaeilge/Colmille who funded the project note that *“In our view, the Guthanna na nOileán (voices of the Islands) project led to a profound and productive cultural exchange between the Irish and Gaelic speaking communities of Ireland and Scotland. The fact that the project openly published video recordings from the workshops and created learning materials from them meant that the exchange has benefitted many more people beyond the direct participants, which we can clearly see from the viewing statistics for the videos and CLILSTORE units. In addition, this project has established a new model for future exchanges between these communities and Islands.” (C6)*

(4) In March 2014, as part of the POOLS3 project’s outreach programme, Ó Dónaill delivered a training workshop in materials development to staff at St. Patrick’s College, Dublin (Dublin City University since 2016). This covered technical training in CLILSTORE and an introduction to Ó Dónaill’s research-informed rationale for using it. The staff were subsequently motivated to develop a series of units on Irish Literature featuring new video recordings of readings and interviews with renowned Irish language poets. The units also include a suite of bespoke interactive learning tasks. These materials have been extremely well utilised by students of Irish literature nationally and internationally (e.g. C7), with 44,235 views and 12,233 dictionary consultations to date. They have been embedded into programmes of study at St. Patrick’s College/Dublin City University leading to *“a system-wide impact, with high levels of usage reported. The expert input of Dr Caoimhín Ó Dónaill, his championing of [CLIL] as a field of action research and his commitment to innovative research-led pedagogies, were the motivating factors behind this work. Undoubtedly, his work has contributed hugely to creating and strengthening an Irish language CLIL community of practice and will continue to do so in the years ahead.” (C3)*

5. Sources to corroborate the impact

C1: External Evaluator’s Reports (TOOLS for CLIL Teachers Project, POOLS3 Project)

C2: European Commission selects TOOLS for CLIL Project as example of best practice.

C3: Qualitative report from Spanish National Agency on CLIL Open Online Learning project.

C4: Testimonial from St Patrick’s College/DCU on impact of POOLS3 training workshop.

C5: Data from survey of CLILSTORE end users (teachers).

C6: Testimonial from Foras na Gaeilge/Colmille on Guthanna na nOileán project.

C7: Testimonial from the Director of the Center for the Study of Languages & Cultures, University of Notre Dame on the impact of authentic learning materials produced by Ulster.

C8: Testimonial from Executive Training Institute Malta on the enduring impact of the 2-week Comenius training course for teachers designed and delivered by Ó Dónaill and colleagues.

C9: Government of Ireland’s Irish Language Strategy 2010-2030; 2018-2019 Report citing Ulster’s role in the national Irish language media strategy through its collaboration with RTÉ.

C10: Testimonial from University of Western Brittany, France, regarding its reliance on learning materials developed at Ulster and the international Third Level Syllabus for Irish.