



Practice and Theory in Geography: Experiences from international collaboration for teacher education

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Abstract

This paper explores how collaboration between university Geography departments in different countries can enhance practical competencies and skills, while bringing innovative approaches to the teaching and learning of Geography at all levels. A major objective is to empower students in geographical thinking and doing by building on their latent skills and knowledge. The spatial perspective must be flexible so as to encourage innovative teaching strategies and technologies. Two experiences of international collaboration between undergraduate geography students are examined. The first case study focuses on joint course experiences of Dutch and Irish students collaborating on the organization and delivery of geographical fieldwork; the second centres on interculturalism, globalization, and good citizenship as worked on by Irish and American students. While both cases involved online interaction, in the first case the students met following a preparatory period of online collaboration, whereas in the second case the only interaction was online and the students never met face-to-face. Both experiences were generally positively received, and serve to highlight the potential for new generations of teachers to use ICT in order to share their geographical empathy and stories across national boundaries, constructs and curricula.

Keywords: Geography, Education, Inter-University, Student-Teachers, Shared-Modules, Case-Studies, Online Collaboration, Irish, Dutch, American, Discovery Learning, Empathetic Intelligence

1. Introduction

Collaboration between Geography departments in various countries – in this case Ireland, the Netherlands and USA – can enhance practical competencies and skills. By bringing innovative approaches to the teaching and learning of Geography at many different levels, it can have positive impacts on student-teachers. The overall aim of such interactions is for students to make

sense of the local while making connections to global contexts and in the same way planning the future in ever-increasing interactions of scales, place and people. In geography teacher education, a major objective is to empower students in geographical thinking and practice by building on their dormant skills and understanding, which many students do not knowingly recognize or “put together”. Given the virtual revolution and ever-changing

technology, spatial perspectives must now be very flexible, not trapped within text books, so as to encourage original teaching strategies and the effective use of technologies (Parkes and Griffiths, 2008; Trahar, 2007).

This paper begins by considering teaching and learning, and the overall importance of empathetic education, followed by the concepts and practice of self and group discovery learning; the current centrality of digital media will also be elucidated. Primacy is given to the case study student-teacher experiences and voices of two inter-university Geography Department modules based at St. Patrick's College, Drumcondra, a college of Dublin City University (SPD) which ran in the academic year 2012-13 and utilised the Moodle Virtual Learning Environment (VLE) as an important communication tool.

The first case study involved a geography fieldwork collaboration between the HAN University of Applied Sciences (Hogeschool van Arnhem en Nijmegen) and St. Patrick's College, Drumcondra. Here emphasis is placed on the joint course experiences of Dutch and Irish geography students communicating virtually to collaborate on the organization of comparative fieldwork and research. This culminated in the Dutch students coming for a week to Ireland in spring 2013, and delivering the fieldwork classes jointly with their Irish counterparts.

Case study two considers a shared US-European geography module that took place in Autumn 2012 with collaboration between UNC – University of Northern Colorado at Greeley – and St. Patrick's College, Drumcondra. The interaction in this module was entirely online, via the Moodle VLE, and was facilitated by the AAG's Centre for Global Geography Education¹. In this case, the focus was specifically on interculturalism, globalization, and good citizenship related to people, places and landscapes. The course materials used had been developed by the CGGE for its *National Identity* module, which examines geographic

characteristics of national identity and interplay of culture, politics, and place. While the Geography colleague in UNC had previously engaged in a similar collaboration with a different European partner, this was the first time that staff and students from St. Patrick's had been involved. Both cases can be seen within the context of the SPD Geography department's internationalised curriculum, which it operates so as to allow non-mobile students to acquire intercultural and international skills at home, based on Nilsson's (1999) concept of "Internationalisation at Home", while also encouraging outgoing mobility.

Spring 2012	Autumn 2012	January -March 2013	April 2013	Summer 2013
Initial contact and preliminary discussions between staff	Recruitment of SPD students; Staff formulate structure of pilot project	SPD and HAN students engage online, planning and preparing fieldwork	HAN students visit Dublin for face-to-face component	Staff follow-up, initial planning for second phase of project

Table 1. Timeline for Case Study 1: SPD-DCU and HAN – a combined virtual and face-to-face collaboration model.

Late Summer 2012	Autumn 2012	January 2013
Initial discussions between SPD and UNC staff, decision to proceed with pilot project	Students are briefed on the project, engage with materials and interact online over an intensive four-week period	Staff follow-up, discussion of further implementation in Autumn 2013

Table 2. Timeline for Case Study 2: SPD-DCU and UNC – an online only collaboration model.

¹ American Association of Geographers: www.aag.org/cgge and National Identity module: <http://cgge.aag.org/NationalIdentity1e/>.

Although the two case studies are complementary and both ran in the same academic year, this was largely coincidental rather than resulting from a specific strategy. The collaborations arose in the first instance, as is common in the academic world, from personal contacts between individuals in the relevant departments where the prospect of “some sort of interaction” was mooted. These preliminary discussions were followed up with formal proposals and a detailed programme of work was developed in each pilot. In case study one, the project was developed *ab initio*, whereas case study two involved “tried and tested” study materials. Both projects, however, shared certain common issues and concerns, as outlined below.

Besides agreeing on the intellectual content of the modules and encouraging student participation, major challenges in the exploratory nature of both shared modules were facilitating staff stakeholders to get to know each other and work together, and to gain an appreciation of the respective institutional, departmental and national cultures compounded by timetable issues and time zone differences, even between the Europeans. The use of ICT for student interactions was new to some of the staff involved, which also posed some initial concerns regarding trust in the technology and in the alternative methodologies required to facilitate learning in this environment. However, in the lecturers’ experiences in learning by doing, after debriefing, like the students they all agreed to continue and develop each project in subsequent years, building on their shared teaching and learning experiences.

Both projects reveal the need for new generations of student-teachers to learn not so much about ICT from a technical standpoint, as in the past, but more so how it can be integrated and applied to across national boundaries, constructs and curricula. This requires an increased awareness and application of their shared geographical empathy and stories, so that the world of the digital native is not separated by an imaginary wall from education and the classroom, as if the education environment constituted a separate world often lagging behind that of the student-teachers.

2. Teaching and learning: empathetic education, discovery learning and the digital age

In examining these two case studies, it is useful to consider two pedagogical aspects – empathetic education and discovery (or enquiry-based) learning – and how they interact and develop different meanings in the digital age.

It has increasingly been recognized that there is more than one type of intelligence, with social and emotional intelligence becoming increasingly valued in the workplace (Goleman, 1996; Ioannidou and Konstantikaki, 2008). Empathetic intelligence is based on a theory of relatedness which is dynamic in relation to thinking and feeling, and ways in which each contributes to making of meaning. It is built on person-centred situations and professional contexts. Salient skills, abilities and attitudes underpin effectiveness in contexts with enthusiasm, expertise, capacity to engage, and empathy itself. Empathy may be defined as a function of mind, brain and feeling, and its relatedness to narrative and imagination. The social usefulness of empathy and organization is crucial in developing cultures of learning. This is crucial in reflection in groups and individually, for students and lecturers, on practice and professional relationships (Arnold, 2005). This perspective on empathetic education must be forefront in an age of digital revolution. Given the (emotionally) distancing effect of technology, it is all the more important that students develop their empathetic intelligence in order to engage effectively in projects such as the ones outlined here, as well as more generally in their work.

The overall approach of both case studies was on discovery learning. The emphasis, as in Naish et al’s research, is for students to become involved in “using their skills to undertake the enquiry”, with staff and students “working together to develop the geographer’s craft and to enhance personal competence” (Naish et al., 2002, p. 69). In this constructivist approach, applied in both case studies, students were not provided with the exact answers, but rather the materials necessary in order to find the answer for themselves. Learners were encouraged to draw on their own experience and prior

knowledge, as well as calling on that of their peers, in the group learning scenario. However, recognising the increasing debate in the literature concerning the value of discovery learning, particularly the work of Mayer (2004), the approach taken moved beyond unassisted discovery learning to utilise what Marzano (2011) has described as “enhanced discovery learning”. A key element in the success of the case studies was the degree to which students were prepared for the learning tasks and provided assistance where necessary, but with a “light-touch approach”, during the task.

Both case studies recognised the value of ICT and the necessity to adapt teaching and learning methodologies to reflect the changing nature of the working environment in the digital age. As information and data are becoming free “open” commodities, the power base is shifting to students and citizens. As such, the learning experience needs to evolve so that students are given the ability to access and utilise these sources and to mould them in an appropriate fashion. In other words, as educators it is increasingly important that we provide students with the tools to interpret digitally-available information, continuing the discovery approach but with a recognition of the need for sufficient scaffolding to support learning appropriately, as well as the skills required to harness and synthesise this data. For example, students may need support in utilising the various tools available to synthesise and make sense of all this geographic information as with mapping tools such as ArcGIS Online, infographics, YouTube and so forth (De Miguel González and Donert, 2014).

From teaching and learning perspectives, there is the immediacy of the information for trainers and students, asking for and getting help; its presence on the Internet (i.e. open) cannot be underestimated, and this is key to empowerment and the ability to promote a cause, issue or concern via social media whether local or global, but with the power to make the local issue global. Students can use the digital media to tell their narratives. Teachers need to be able to respond to the geo-media and information sources.

The following case studies explore how these

different aspects of pedagogy were combined in real-world experience, to create an authentic and meaningful learning experience for students.

3. Case Study 1: SPD-DCU and HAN – a combined virtual and face-to-face collaboration model

Discussions about potential fieldwork collaboration between SPD (Ireland) and HAN (Netherlands) began in Spring 2012 and it was agreed that a pilot project would be launched during the Autumn. The format of the project, which involved both online and face-to-face elements, was dictated in part by resourcing issues and also by the challenges of co-ordinating different calendars and programmes to facilitate travel. Although it was considered desirable that both cohorts of students (i.e. Irish as well as Dutch) would travel to the other country, this was not feasible in the first year. Therefore, following discussions it was agreed that in the initial pilot phase students from HAN would be hosted by the Irish students, with the potential to further develop the project in subsequent years if the pilot proved successful.

For the Dutch students, the fieldwork module was a required part of their final year programme. In the case of the Irish students, the 2012-13 pilot project was operated on a volunteer basis, whereby participating students would earn credits in lieu of a different module. In the late Autumn of 2012, a call was put out to the undergraduate Geography students at SPD inviting applications for the inter-university module, with numbers being limited to 15 students. The self-selective nature of the SPD student participation was important in order to maximize engagement; the response was positive, filling the quota number, but there was not a huge number of requests, perhaps indicating the general conservatism of the Irish students when faced with the “unknown” aspects of the pilot project.

Following an initial face-to-face meeting at the end of the 2011-12 academic year, staff colleagues in the two institutions communicated by email in December 2012 and January 2013 to agree the basic programme which would be followed. In January 2013 the student

participants in each institution were briefed on the exploratory nature of the project, and basic key ideas that had to be included in the organization and delivery of the fieldwork. The students were divided into self-selecting pairs which subdivided the work. Each pair was matched with a corresponding pair in the other institution. The "Online Forum" facility on the Moodle VLE was used to enable the students to communicate, while also facilitating light-touch monitoring by the geography staff. The virtual research and organization took place between January and April 2013, with students preparing not alone the intellectual content, but also all practical aspects including their travel and accommodation, maps, handouts and workbooks.

In April 2013, joint delivery took place in Ireland with four intensive fieldwork days in the urban environments of Dublin and Belfast, and in the Dublin-Wicklow Mountains, the glacial valley of Glendalough (Valley of the Two Lakes) renowned for its early medieval monastic settlement dating from the 6th century with surrounding forests, and the Boyne Valley with its salient glacial and fluvial features impacted on by 7,000 years of human habitation. In the division of labour, the Dutch students took the lead in the physical geography work, and the Irish had the leader role in human geography. However, here a challenge for both teams was to blend, in as far as possible, the human and physical geographies in a meaningful way, rather than seeing them as completely separate entities. Three Irish and two Dutch lecturers were responsible for light-touch leadership, while the face-to-face fieldwork component was monitored by a German Professor on Erasmus staff mobility from the Faculty of Science and Geography Education, Cologne University².

As previously noted, this first case study involved a combination of online and face-to-face interaction. For the Geography staff involved, there were some concerns as to how the Dutch and Irish students would adapt to the latter. On the evening that the Dutch students

arrived in Dublin, a barbecue was organised at SPD to greet them. Despite staff concerns of awkward moments in getting the students to mingle, fearing that they might stay in the comfort zone of their own class friends and language-culture groups, exactly the opposite happened. Instinctively the students, recognizing each other from photos and Skyping, shook hands like old friends and engaged in hours of discussion and partying. Whereas staff had focused on the use of online interaction to produce shared fieldwork material, for the students who had used various digital media to communicate and collaborate, the interaction had moved beyond the purely academic realm. Thus the students had developed their empathetic intelligence, and become connected socially and culturally, as well as intellectually.

As Nairn et al. (2000) stress, fieldwork has the potential to play a flagship role in the context of internationalisation. Nonetheless, despite geography being the core material, vast differences in international and inter-cultural methodologies and approaches were commented on by students and lecturers alike, with much information being shared by both teams in informal settings. In relation to the student leadership and oral delivery of the fieldtrips, essentially none of the SPD students had training in public speaking or group management, which proved to be a drawback at times, nonetheless these skills visibly improved with each fieldtrip, partly due to informal feedback and mentoring from their HAN counterparts. Taking into consideration that the Dutch students were majoring in Geography, and not English language, a Dutch lecturer expressed her satisfaction that her students were also acquiring the skills of teaching geography through English in a non-judgemental environment, which had not been foreseen. Positive inter- and intra-group "learning by doing" took place among peers, along with the creation of digital material, and case-study and workbook material. While the latter is much part of the culture of the Irish students, this was not a feature of the Dutch system at the time, but has since been adapted by the Dutch student-teachers.

In developing the pilot programme, the collaborating staff built on each others' strengths to enhance the learning opportunities for students.

² Daniela Schmeinck, Institut für Didaktik des Sachunterrichts, Universität zu Köln (University of Cologne).

For example, the Moodle Virtual Learning Environment was already in use in SPD, and was introduced to the HAN colleagues in order to provide the main mechanism for pre-fieldwork communication. Similarly, staff in SPD learned from the fieldwork set-up in use in HAN, whereby the students were made responsible for the practical organizational aspects of their fieldwork, such as planning transport, accommodation and food. The project can therefore be seen as offering very real dialogue and on-going skills enhancement for staff as well as students.

The tasks undertaken by the students before, during and after the fieldwork experience reflect Harper's (2004) experience of active learning in fieldwork. Active learning was represented in the preparation phase, which involved problem identification by consensus agreement, collection of information, analysis and synthesis, and in the in-field presentations to student peers and staff. Furthermore, in both oral and written post-fieldtrip evaluations, students were given an opportunity to reflect on the processes and learning that occurred, much as Harper (2004, p. 96) described.

A critical key to the overall success of the experimental project was the development of empathic intelligence over the months, without which many challenges in the field would not have been overcome. On the final morning of the fieldwork, staff and students from both institutions engaged in a formal debriefing session, which included the development of detailed recommendations on how to further improve the module. All participants considered the pilot project to have been a great success and all recommended that the programme be continued and further enhanced in future years. This has been done, with a second visit by a new cohort of Dutch students to Dublin in April 2014, while the Irish students travelled to the Netherlands to follow up on the joint fieldwork experiences in Autumn 2014.

4. Case Study 2: SPD-DCU and UNC – an online-only collaboration model

Geography and national identities constituted the core concept in the collaboration between the

University of Northern Colorado (UNC) and St. Patrick's College, Drumcondra (SPD). In this case, the Moodle-based course was facilitated by AAG's Centre for Global Geography Education (CGGE) and utilised existing teaching materials. Participation was a course requirement for both student cohorts. Due to timetabling, staff availability and other institutional challenges, there were not equal numbers of students from each of the participating institutions. Some 60 Irish and 20 US students participated in this experimental linkage project, and there was light touch involvement from the module moderator based in Dublin. The organisation of both groups (within and between them) was somewhat similar to that described for the first case study, with teams of students in each institution being matched with, and subsequently interacting online with, a corresponding team of counterparts in the alternate location.

The methodology for case study two, which had already been developed by other users of the CGGE material, was to initially engage the students through icebreaker activities, following which the groups in each institution studied common material to which they responded in online forums following prompt questions. The underlying thematic question was: *How are people's national identities connected to places?* For the students, a key to the learning process was the fact that they were interacting in a non-judgemental environment with their peers, and their main mode of learning was through simple comparison and contrast of experience. In effect, through their online conversations, students were engaging in discovery learning with their peers, becoming empowered to develop their own geographical thinking and practice by building on their dormant skills and understanding. The CGGE conceptual framework being used introduced students to key concepts, theories and analytical approaches in geography, in order to provide them with the necessary background to think geographically about the issues under consideration. Regional case studies use a variety of spatial thinking activities to engage students in analysing issues from a geographical perspective. All of the CGGE modules were developed collaboratively by geographers from different countries with the intended use in connecting geography classes in

different countries using e-learning technologies (Solem et al., 2010). Naturally, the case study material supplied was adapted to the needs of the Irish and US students.

The themes explored in the AAG module are developed in four steps, beginning with the question : *How is nationalism symbolized?*, which uses focus material based on Europe. This is followed by a section considering *how landscapes represent national identity*, with an Irish focus study. The third step considered *Why are public spaces sometimes contested?*, which used two local case studies from the USA, followed by: *How is globalization transforming the borders of national identity?* Although this final step used an Asian case study, the Irish and US students adapted the definitional ideas and research to look at immigration in their home environments of Colorado and Ireland. Overall, student collaboration obliged them to collect, create, compare, and discuss data and issues representing national and regional cultural identities while using digital media. Grading of the students was based on their on-line participation materials, individual and small group, and on an extended essay-report.

5. Responses to case study 2 from the Irish students

The collaboration between the Irish and US students took place over a relatively short time-scale, compared to that of the first case study, and there was a shorter period of preparation available to the SPD staff, because of the time-frame within which the Irish department had partnered with US-based colleagues at UNC. For these reasons, a full evaluation and analysis mechanism had not been built in to the pilot project. However, when the Irish students were submitting their assessment material at the end of the pilot, they were also asked to write about their learning experience. This was relatively unstructured, with students being asked to produce a reflection of approximately 400 words, following two broad prompt questions, which they could choose to utilise or ignore.

Write a reflection on the experience of exploring questions of national identity in the context of this international collaborative project (max. 400 words). e.g. including, but not limited to the following areas: What key insights did you gain? What surprised you about the experience?

Table 3. Text of reflection task for Case Study 2, which yielded the student quotations discussed below.

The responses from the Irish students were read and broadly categorised by one colleague. A selection of student quotes below is representative of the overall group. .

Students were asked what their expectations had been at the start of the pilot, when they were told what the project involved, and then asked to evaluate what their experience had been. In terms of expectations, there was a broad spectrum of responses, from apprehensive, nervous, daunted, uncertain, to excited and intrigued. It was not surprising that some of the Irish participants admitted to approaching the pilot with negative expectations, however the staff involved were astounded at the overwhelmingly positive response of students when asked to reflect on the overall experience. Without exception, every student said that they found the project worthwhile and valuable and that they were glad that they had been involved. A 100% positive response rate was thus achieved.

Students stated that they learned a lot and gained insights into their "... *own sense of national identity... transcending stereotypes... local landscapes... different modes of learning*". Regarding overall positivity students commented: "*rewarding and insightful experience... very stimulating and enjoyable*" and "*I was surprised that I enjoyed the process so much, as at the beginning I hated the thought of undergoing this project*". As regards the nature of the activity: "*something completely different to conventional assignments... its educational value was extensive*" and "*I was surprised at the high level of engagement in the collaboration and the interest my own posts generated*".

In respect of the specific components of the work, they greatly valued the individual work and small group Virtual Tours that they had to create in order to introduce themselves to each other.

"The opening activity of composing a virtual tour of our locality was a lovely way for all members of the forum groups to get to know each other's locality and to see what aspects of their locality are most important to them".

"The virtual tour was very insightful; they showed us their landscapes, cultures and norms. It helped us relate to these students and knowing why things are important to them was essential in our cyber relationships...". These responses also suggest how the personal nature of the content helped the students to develop empathy and understanding of each other, transcending the potential barriers imposed by digital communication.

For many students, the online environment was seen as a positive encouragement to greater interaction and understanding, rather than a barrier, as these representative quotes indicate: *"I loved the way we could express our opinions in a non-judgemental environment". "What surprised me most is how involved I got. In the evening times I loved reading the various posts". "I was doubtful about how talking to students half way across the world would help with our understanding of geography, however having completed the task I fully understand why it was so worthwhile" "... it encouraged us to interact with one another". "Everybody got really involved, participated well, and communicated with the international students and each other. The forum allowed for an informal means of learning from peers in an enjoyable, pressure free zone". "One thing that definitely surprised me in this experience was how different the American students were to us. They had no qualms or reservations about starting the forums, whereas I was more reserved in the beginning... I began to enjoy posting my points and discussing different topics". "The informal style of this assignment made it easier to talk to them, and it became more like talking with old friends than a group of people who had to talk to each other for marks for a course" (Forums) "allowed for better learning as it gave us an*

alternative way of learning, away from lectures and normal group work..." "It felt like we were learning without knowing it". The students valued the different type of interaction space created by the online environment, with frequent references being made to the "informality" and "non-judgemental" nature of the forum space.

As early as 2000, Rich et al. observed that international collaboration provided enhanced opportunities for cross-cultural teaching and learning. In particular, they pointed out that "ICTs have the potential to underpin rich communications among staff and students from all parts of the world, support the exchange of ideas and information and, perhaps more importantly, provide alternative viewpoints and perspectives that may question beliefs unchallenged in the domestic environment" (Rich et al., 2000, p. 266). This argument was clearly borne out by the comments of the Irish student participants in this case study. The following comments relate to four themes in turn: national identity; challenging stereotypes; "learning about ourselves" via other people; personal development. These examples particularly highlight the value of cross-cultural interaction, with the very simple methodology of comparison and contrast yielding valuable insights for the students.

Learning about national identity, students commented:

"An opportunity to see the American's perspective on the Irish nation state and to discuss relevant topics such as migration and national identity" "... I realised how although they live on the other side of the world, they are similar to us".

"... How interesting it became to read about the views that international students hold on the same issues that we were looking at".

Reflecting on challenging stereotypes, students observed:

"How intriguing to see what people from America thought defined their national identity, and how it compared to the stereotype I had of people from these countries".

"What surprised me... was how narrow-minded I was when it came to other countries

(before this project)".

"It showed me that issues, such as racism and judgement when it comes to migration matters, are the same throughout the world, regardless of the country".

"I feel it broadened the horizons of all nationalities involved... and gave us the opportunity to understand how people feel about their respective countries..."

Regarding "learning about ourselves" via other people, students reflected:

"The most surprising part... was how much it taught me about Ireland".

"Being able to see other people's opinion on national identity, rather than just my own, really enforced the idea of the topic for me. ...great to be able to interact with people and ask them why they composed their answer and what influenced them to do it".

"I gained a lot from this experience... I never before thought of what made me Irish and having to articulate that to people from another country was both challenging and rewarding... I don't think this project would have worked as well as it did had it not been an international collaborative project. This is due to the fact that it was discussing the features of our national identities with people from other identities which enabled us to learn during the process. It also helped widen my perspective..."

On the subject of personal development and insight, students stated:

"As a [student teacher], I now have the understanding of how important it is to gain knowledge of how others view their state and environments, not only for myself but also for my future pupils".

"I hope that I can take what I learned from it and apply it to my own life and my studies of geography in the future".

"I feel that I will have a more open attitude towards new people that I meet and I will take more of an interest in their culture and their upbringing".

"I felt this project opened my eyes, to realise how much my life is affected by globalisation".

"I realised how interconnected we were..."

As regards student recommendations for the future of such a collaborative shared module project, they suggested more equal numbers in each of the international sub-groups. The imbalance between the large class numbers of Irish students in contrast to the smaller Colorado class, three to one, debilitated certain aspects of deeper student communication. In addition to the relatively informal evaluation of the project by both Irish students and staff, the Dublin-based moderator produced a number of recommendations. Some of these were related to technical aspects of the project, such as the need for a separate website for the project, as well as potential for the moderator to access and adapt the AAG-CGGE materials more readily in order to provide additional material and data which was being requested spontaneously by the student participants. Students also recommended that more new "live" common materials be integrated into the website, especially regarding emigration.

In terms of empathetic intelligence and discovery learning, the moderator commented very positively on the way in which the structure of the project facilitated their development. He noted the potentially "excellent peer experiences: Irish to Irish (inter and intra group(s)), and Irish-US." While in the students icebreaker activity "My own story" there was a rich self-discovery of contrasting rural and urban narratives, and "taken for granted worlds", such as McDonald's and other common global experiences, bridged the gap. Concerning stereotyping, transitivity became evident in witnessing both teams discussions of "the migrant" whether the Mexican in Colorado, or the East European or West African in Ireland.

Regarding the spatial perspectives, the small area of Ireland came to the fore in contrast to the actual and imagined large scale USA. Concerning lifestyles, the local remained highly significant, but there were vastly different concepts of social and cultural embeddedness amongst the Irish students themselves, and especially between the SPD-DCU and UNC students.

Despite a slow beginning in getting students to interact with each other, especially a wait and

watch approach from the Irish students, which had been brought to their attention, before a threshold was reached and then the communications and work really took off. Students greatly valued the non-hierarchical free-environment teaching and learning methods used. The work had a positive impact on the Irish students' confidence building related to communication and writing facilitated by their social media.

6. Conclusions

The overwhelmingly positive experience of the two pilot projects outlined above has served to encourage the geography department at SPD to further develop innovative engagements and collaborations. More generally, it seems clear from these two contrasting projects that collaborative approaches and cooperative works are promising methods both for didactics and for geographical education's epistemology.

Based on the student comments and staff observations, one common aspect of both projects which seems to have been greatly appreciated by the students is the freedom which it gave them to learn in a non-judgemental environment. Both experiences, which offered light-touch supervision by staff and provided the students with an organic approach whereby they evolved their own learning within the VLE (as well as face-to-face in the first case study), provided positive opportunities for enhanced discovery learning. While students were facilitated in their learning, through provision of materials and/or support structures, they were given the space to figure things out collaboratively, to work through the materials and to teach each other.

While only at the pilot phase, both projects revealed an enthusiasm by the students (after an admittedly slow start) and a potential for more creative use of online learning spaces. They challenged us, as educators, to develop a more positive approach to the online world, not simply to be seen as a pale imitation of face-to-face experience, but as offering very real potential to learn in ways which would not otherwise be possible. The fact that students are

increasingly comfortable with interacting online in their day-to-day lives, as "digital natives", meant that they were more willing and able to engage with their peers online than might have been the case even a few short years ago. For the students, virtual engagement was not such an alien concept and they employed empathetic intelligence in order to build relationships with their overseas peers which facilitated real learning and interaction.

While this paper has focused on some of the key positive learning experiences of these two international collaborations, the challenges and difficulties of this form of education should also be acknowledged. As with any new project, careful planning is essential, as are clear explanations of tasks and instructions for students. Although both projects involve forms of discovery learning, both required extensive scaffolding to make them work effectively (Marzano, 2011). Communication lines between the staff facilitators in the different institutions must be open and honest. Despite best intentions, misunderstandings can arise, particularly in cross-cultural collaborations, and these need to be addressed with clarity and sensitivity. The use of different technologies which may not be familiar to all participants can also prove a barrier to participation, which makes it all the more important that adequate technical support is provided for all of those involved. This is in line with the findings of Reed and Mitchell (2001, p. 323), who pointed out that "working out principles of CL [collaborative learning] in a web-based environment creates learning challenges that are simultaneously related to pedagogy, performance and technical proficiency". Hurley et al. (1999) also observed that, while the application of constructivist-inspired teaching and learning strategies together with Internet communication tools served to facilitate geographically distant students in a dynamic process of collaborative inquiry and comparative analysis, this required considerable time, effort and resources.

Both pilot projects had a positive knock-on effect on the inter-departmental and inter-university staff as well as on students. Regarding teaching and learning Geography, all students and participating staff in both projects recommend that they be enhanced and continued, with the key

tool being digital media, as driven by students own digital tools, apps and everyday usage and interests. However, the greater face to face contact between the HAN and SPD-DCU students and staff added a larger dimension to the overall empathetic teaching and learning experience.

Overall, the objectives of the pilot projects were achieved with students integrating their own "everyday digital skills" into teaching and learning Geography, as well as learning additional digital skills horizontally and transversally in peer learning. The centrality of empathetic themes targeting "own to wider cultural scales" and "contact with the "other" was achieved and acknowledged by the students themselves. In both cases, students valued the joint course experiences of working with students from other countries. The projects served to enhance internationalisation while also encouraging and sometimes challenging students and staff alike to reconsider their approaches to geographical thinking.

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