CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

Title	Community-engaged student research: online resources, real world impact
Authors	Bates, Catherine;Burns, Kenneth
Publication date	2012-11-01
Original Citation	Bates, C. and Burns, K. (2012) 'Community-engaged student research: online resources, real world impact' In: Quinn, A. M., Bruen, C., Allen, M., Dundon, A. and Diggins, Y(Eds.). The Digital Learning Revolution in Ireland : Case Studies from the National Learning Resources Service. Newcastle Upon Tyne: Cambridge Scholars Publishing
Type of publication	Book chapter
Link to publisher's version	http://www.c-s-p.org/Flyers/The-Digital-Learning-Revolution-in-Ireland--Case-Studies-from-the-National-Learning-Resources-Servic1-4438-4129-3.htm
Download date	2026-11-17 11:59:34
Item downloaded from	https://hdl.handle.net/10468/1071

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Note: Close to final edition of book chapter published in this book. Please cite chapter using this reference:

Bates, C. and Burns, K. (2012) 'Community-engaged student research: online resources, real world impact', in Quinn, A. M., Bruen, C., Allen, M., Dundon, A. and Diggins, Y. (eds.), *The Digital Learning Revolution in Ireland: Case Studies from the National Learning Resources Service*, Cambridge, Cambridge Scholars Publishing.

Community-engaged student research: online resources, real world impact

Catherine Bates and Kenneth Burns

Introduction

The global economic crisis, the cost of socialising enormous bank debts and exchequer fiscal 'corrections' in the Irish economy (see Kirby and Murphy 2011), have sharpened recent debates on the role and functions of Higher Education Institutions (HEIs) in society. Key debates have centred on public sector pay and performance, and the contribution HEIs should make in building the knowledge economy and driving Ireland's economic growth. However, HEIs also have a significant part to play in civil society. HEIs are often criticised for primarily serving the elites, the powerful and the economically privileged sections of society; but all citizens, groups and organisations should have a right to participate in HEI activities, and be facilitated to share their mutual knowledge and expertise, and to collaborate on the creation of new knowledge.

Civil society organisations (CSOs) can become engaged in higher education, particularly in the research activities of HEIs, through the process of community-based research (CBR), often facilitated through a knowledge exchange or community liaison office. Civil society organisations include: voluntary and community organisations, residents' groups, non-profit organisations, associations, pressure and faith groups, and trade unions. CBR - also known in Europe as "Science Shop", from a Dutch phrase meaning "knowledge workshop" - involves students and/or academic staff collaborating with community partners to address local and/or societal research questions identified by CSOs. In this chapter, we argue that the *bottom up* CBR approach, facilitated by the use of on-line resources, enhances the ability of HEIs to meet their civic engagement obligations contained in the *National Strategy for Higher Education to 2030* (Hunt 2011). CBR also makes HEIs more responsive to society, enhances student researchers' knowledge, skills and competencies, and contributes to community development. This chapter begins by introducing community-based research and its development on the Island of Ireland. We then outline and evaluate our experiences of using online resources in similar ways in two HEIs – Dublin Institute of Technology (DIT) and University College Cork (UCC) - to facilitate student recruitment to CBR projects, as well as supporting the involvement of community partners and academic supervisors. This is very much a discussion paper based on evolving work practices, rather than a definitive evaluation of a finalised product. Throughout the chapter we argue for HEIs using such digital resources as a way to promote and facilitate staff and student involvement in civically engaged research. We will conclude the paper with a brief discussion of our publication of completed CBR reports on our websites, in light of the open access to research movement.

Community-based research – introduction and benefits

Community-based research (CBR) in the United States and Canada grew out of a combination of traditions in the 1970s, including popular education/community development, action research, and participatory action

research (Strand *et al.* 2003; Stoecker 2011). In mainland Europe, science shops emerged independently in the same decade in the Netherlands, driven by students and staff, inspired by the philosophy of the 1968 student protests, combining project-based educational methods with environmental awareness and social concern (Mulder *et al.* 2001).

Strand *et al.* (2003, pp. 3, 8) in their seminal text on CBR and Higher Education, define CBR as:

> a partnership of students, faculty and community members who collaboratively engage in research with the purpose of solving a pressing community problem or effecting social change […] Faculty and students work with community-based organisations to define the research questions and develop appropriate strategies to address those questions.

Strand *et al.* (2003, p. 8) also identify three core tenets of CBR which DIT and UCC subscribe to:

- CBR is a collaborative enterprise between academic researchers (staff and students) and community members
- CBR validates multiple sources of knowledge and promotes the use of multiple methods of discovery and dissemination of the knowledge produced
- CBR has as its goal social action and social change for the purpose of achieving social justice.

The adoption of CBR in the Republic of Ireland has been quite recent, with the first CBR initiatives emerging in several HEIs in the mid-2000s; whereas Queen's University, Belfast in Northern Ireland established their Science Shop over 20 years ago [just waiting for confirmation re QUB and UU dates]. There has been some form of Science Shop or community-based research related centre for several years in a number of Irish HEIs, including DIT, UCC, National University of Ireland Galway, Trinity College Dublin, among others, and several other HEIs are currently working to establish community-based research and learning centres. HEIs on the Island of Ireland tend to share a particular model of community-based research focusing on underserved communities and groups such as Non-Governmental Organisations (NGOs), local community groups in disadvantaged areas, charities, and those providing services to communities in need. In Ireland, students electively undertake CBR projects as part of their coursework (for example as part of a final year dissertation, or as the subject of their PhD or research Masters) within accredited modules, and this work is supervised by academic staff. In some cases a lecturer may also elect to run a small CBR project with a class group of students as a compulsory part of a module.

The benefits to academic staff, students, community partners, and HEIs of engaging in CBR are many. Gall *et al*. (2009, p. 14) remark on

> the high productivity of such projects, both in terms of concrete outputs (deliverables), and in terms of less tangible outcomes (e.g. empowerment of communities). By the variety of the outcomes, and their relevance for different partners, Participatory Research is deemed 'highly productive', 'cost-efficient' and 'good value for money'.

The reciprocal aspect of the exchange, whereby all parties benefit from the research process (Israel *et al*. 1998), is a hallmark of CBR.

Firstly, for students, these research projects offer opportunities to work on live research questions in a real-life context outside of the HEI and to make a significant impact on the work of the CSO. Students have the opportunity to learn with and from communities, drawing on community expertise, and simultaneously learning about the community sector and the challenges it faces, which can be invaluable experience if they are thinking about looking for work in this sector after graduation (Hende and Søgaard Jørgensen 2001). CBR projects give academics and student researchers 'more opportunities to reflect about the societal consequences of their work, and a better training on how to communicate about their choices and assumptions, and how to engage with society' (Gall *et al*. 2009, p. 21). Students, together with the community partner, undertake valuable research that can contribute to practical changes in practice, policy development, organisational change, municipal and/or government policy lobbying, funding applications and may also lead to future research (Gall *et al*. 2009). The link between research and social action, social change and lobbying within the CSO and wider society, is a further hallmark of CBR.

Secondly, for the HEI, this approach to research can make the institution more responsive to the research concerns of society, and in particular, of traditionally marginalised groups. CBR benefits the HEI in relation to knowledge production, and can lead to publication of peer-reviewed articles (Gall *et al*. 2009). A CBR approach can enhance the process of widening participation in Higher Education by building strong links with communities, and lead to innovations in research (McMahon 2010). Furthermore, CBR is one way for

HEIs to synthesise the three missions of HEIs outlined in the National Strategy for Higher Education to 2030 (Hunt 2011), which are: research; learning and teaching; and engagement with the wider society.

Thirdly, for the supervisor, there is the opportunity for the community partner to add new energy to the supervisor-student relationship, along with another kind of expertise. There is the opportunity to help their students develop new skillsets such as collaborative working and social awareness. There is also the possibility of developing interdisciplinary and multi-annual projects with committed community partners (Hende and Søgaard Jørgensen 2001).

Finally, for the community partner, CBR offers opportunities to enhance their research and programme development capacity (Israel *et al.* 1998), to build long-term productive partnerships with staff and students in HEIs, to contribute to the education of future staff and professionals, and to influence the direction of research (and teaching/curriculum development) in HEIs from the ground up. Also, CSOs are cognisant of the shift towards evidence-informed practice (Macdonald 2003) to support their decisions, planning and interventions, and CBR projects offer ways to access and generate high quality, accessible research data and interventions.

This participatory approach to research, which emphasises reciprocity, shared power and decision-making, and the prioritisation of CSO research needs, may not be of interest to all students, but will inspire others. In the next sections we outline how we use existing straightforward, but effective, digital and online resources to identify CSO research needs, to explain the CBR research process, to recruit students, and finally, to facilitate the wide dissemination of, and free and open access to, the research findings.

Community partner and student recruitment, and broad outline of processes.

UCC and DIT, while having similar philosophies and approaches to CBR, have different institutional structures in place to facilitate this work. The Programme for Students Learning With Communities (SLWC) in DIT is located under the umbrella of Access and Civic Engagement–Community Links, in the Directorate of Student Services. SLWC has an institute-wide remit, working across all four academic Colleges. The 1.3 full-time equivalent SLWC staff members support CBR across DIT, and also community-based learning (or service-learning), which is course-based project work with community partners (such as DIT students tutoring senior cycle pupils in an exam subject as part of their work placement module). SLWC staff work with academic staff, research students, and community partners interested in collaboration with DIT, identifying possible matches, introducing partners, facilitating the start-up of accredited research and projects, and supporting them to conclusion.

Community-Academic Research Links (CARL) at UCC is a small initiative of mainly academic staff who give their time voluntarily to support CSOs and students who are interested in CBR. Without a funding stream, we undertake 12-15 projects a year, primarily in the social sciences, but we are currently expanding our CBR activities to other disciplines. Unlike SLWC, we are mostly located on course teaching teams, which facilitates the academic teaching of CBR and the recruitment of students.

In brief, the CBR process begins with a request from a CSO for a student to undertake a piece of research with them. A student, having identified a topic of interest using the on-line database, discusses it with his/her tutor, completes an application form, and submits it to CARL/SLWC for matching. A three-way meeting is set up between the supervisor, student and community partner to discuss the proposed topic, to scope out how the CSO and student might approach the research, what support the supervisor and community partner can offer, the timeline for the research and schedule for contact during the research, and the final handover date. An agreement is signed which covers these issues and also proposals to disseminate the completed research, and how the CSO will use the research. Depending on the model of CBR that is comfortable and agreed between the parties, either the student, or preferably the student and CSO together, undertake the research. The research process is supported by the supervisor and is submitted for assessment in the regular way, and subject to academic standards, the research report is then handed over to the community partner and disseminated.

To facilitate this process, CBR initiatives use digital resources to recruit students and community groups. Digital technologies are also used to disseminate the research. These online resources are outlined and evaluated below.

Evaluation of use of on-line resources to date.

In this section we evaluate our experiences of using on-line resources in recruiting, sustaining, and disseminating the outcomes of community-student partnerships for CBR projects. As our processes are continually being evaluated and amended, this is work in progress. We also consider the challenges inherent in this way of working, and offer pointers on how to overcome these.

1. An online research topic list is an essential resource.

In both DIT and UCC, once research topics are agreed as suitable projects for CBR (examples of criteria include being from a not-for-profit group and having a clear research goal/questions), a database of available projects is posted online that students can browse. Having such a list is invaluable, firstly to raise the profile of CBR in the HEI and to external and internal stakeholders who might browse the website, the list being described by one DIT Head of School as 'an impressive range of projects'. Secondly, it is a clear statement of intent on behalf of the HEI to make its research relevant to the needs of society, and to engage with communities. Thirdly, it assists with the matching of students with community partners. Finally, the list can help as a recruitment tool for potential students and their parents who may like the idea of attending a HEI where students can conduct real-life research with CSOs.

Easy to access lists are placed on our respective websites (see web links at the end of the chapter) which are constantly updated once new projects become available. Given the limited funding available to both initiatives, a simple technical solution is preferable to bespoke integrated web databases. The online database of projects is also useful for supervisors with students who would like the challenge and rewards of a real-life research project in partnership with a community partner, and also students who are simply 'at a loss' for a research topic. As a general rule, projects where students are drawn to the real-life application of the research, rather than those where students undertake such projects for want of any other project ideas, seem to work better. Examples of student motivation can be seen in the following quotes from students in their application forms:

> "I think that it is important to have some form of real world applicability to my research and feel that I could construct a healthy and mutually beneficial partnership with [the community partner]"; "Operating in a real world context would create a more demanding project environment, benefiting both partners and resulting in the creation of a more accurate and appropriate […] solution [to the research question]"; "This [CBR project] would give me the opportunity to engage in the local community at grass roots level. It would enable me to update and develop my knowledge of issues and approaches relevant to the community sector" (extracts from completed SLWC application forms 2011/12).

In DIT the list also showcases the range of disciplines in which research can be undertaken, which may be a struggle for community partners to conceptualise – for example, how might engineering research be of use to a drug treatment centre?

2. The on-line database needs to be promoted and supported by academic staff to be effective.

Advertising the on-line database is a crucial part of raising awareness of it, particularly among students and interested lecturers. In DIT we leave promotional postcards targeting final year students in the relevant Students' Union display areas, we place adverts in DIT student magazines which direct students to the research topics database, and our Facebook social media page advertises our website to students and the public. We circulate discipline-specific lists of projects, drawn from the database, by e-mail to interested lecturers to publicise among their students. In three key disciplines we have been invited by course/thesis coordinators to talk to final-year postgraduate students to tell them about the Programme, the online database, and possible projects in their area. We find that recruitment to these projects seems to work best when encouraged by lecturers, either directing students to the on-line database themselves, or inviting us to present to students and direct them to it. A small number of students who cold-called us about projects on the database, which they had found themselves, did not end up pursuing these research topics – it is possible that their lecturers, if not familiar with CBR or SLWC, may have been reluctant to supervise students working in this way, and may have encouraged them towards other projects instead. The technology alone may not be enough if it is not supported by a real-world interaction and process.

UCC recruit CSO and students using readily available technologies on campus. CSOs are recruited through word of mouth, through a LISTSERV email list that is sent to over 600 NGOs, community and professional staff in the Republic of Ireland, an online publication called *Practice Links* (Burns *et al.* 2012) and existing university staff and student email lists. Students are made aware of the online database through our BlackBoard Virtual Learning Environment and through CARL staff being invited to give short CBR inputs on professional and methodology courses. As CARL is an unfunded initiative with largely academic staff volunteers, recruitment is also facilitated through face-to-face class teaching. However, we are increasingly aware of the limitations of web templates using traditional content management systems. Learning from CBR partners in a European Commission Public Engagement in Research study (PERARES, see Living Knowledge 2012) regarding the effectiveness of social media platforms for engaging with students, CARL is presently creating a Facebook page and embedding YouTube videos into our website/Facebook page to help explain CBR to students and community partners (to be completed by Autumn 2012).

3. Compilation of the online research topic list requires care.

Some community partners may not have any background in research, and extensive discussion and brainstorming can be required in order to identify particular areas where research could be useful. Although the SLWC website has a form to allow community partners to submit research topics on-line, this has not happened once in almost four years of practice. We find that community partners generally come to us by word of mouth, although occasionally CSOs contact us having found our website themselves. We almost always collect research topics from community partners at face-to-face meetings where we discuss possible project ideas, in the context of the broad range of programmes and disciplines available across DIT. Care is needed to frame these ideas into topics broad enough for interested students to be able to consider from their own area or angle of specialisation, but not so broad that they can overwhelm both students and supervisors. Israel *et al.* (1998, p. 188) highlight how,

> Given the role of the partners in a community-based research effort and the dynamic community context in which it is carried out, it is not always possible to fully specify up-front all aspects of the research design and intervention (when included). Thus, there is the challenge of selling a process without completely specifying all the outcomes beforehand, often troubling for researchers [...] and community members.

In DIT, the wording of the research question is refined by SLWC staff as part of the process of writing minutes of the meeting with the community partner, and the wording is then sent to the community partner for review/editing. Only when the community partner has approved it, is it posted on the website. The topics are categorised by discipline in the on-line database, and may be linked to more than one discipline. On one hand this categorisation has the potential to deter students from taking interdisciplinary approaches to a topic, which are often the most effective in order to address large societal issues (Max-Neef 2005). On the other hand, discipline-based categorisation is more likely to facilitate students finding topics of interest to them, given the large number of topics, and considering that DIT is structured into Colleges, Schools and Programmes according to discipline. Several projects are multidisciplinary, however, so students can have opportunities to work alongside their peers with a particular community partner, and occasionally there are interdisciplinary projects where a student researcher is sought in a particular discipline who will develop the work of a class group of students in a different area.

DIT and UCC take a different approach to identifying community partners in the online database. In DIT's online database, all the topics are anonymised. This approach was chosen firstly to protect the privacy of organisations who might want to complete an evaluation of their own programmes, for example, and who might not want other organisations to know about it until it was complete, and secondly to ensure that students would not approach the organisations directly without completing the application process with SLWC staff. Dealing with students across DIT (1,300 students were involved in CBR and CBL projects in 2011/12, although CBR was a small part of this total), we need to ensure that we get to know students ourselves before linking them with a CSO, and this need outweighs the possible reluctance of students to enquire about a research topic without knowing anything about the partner organisation. This is unlike CARL where the coordinating academics know most of the students involved.

CARL adopts a more open approach to its database, and organisations are identified on the web database by mutual consent. Students are aware that they must apply through CARL to undertake a project and

there are selection criteria that they must meet before we would consider matching them with a CSO. As we largely recruit students through academic staff on courses, students are aware that they should not approach a CSO directly. However, students on placement with CSOs or who volunteer with CSOs, have also introduced CSOs to CARL directly.

4. Support materials online, in addition to the database, are essential.

UCC and DIT both place our research/timeline agreement forms, student application forms and research process maps on our websites alongside the database of projects, so that CSOs and students can take an informed position on the implications of taking part in a CARL/SLWC CBR project. In DIT, as we work with supervisors in many disciplines across the institute, some of whom may not be familiar with CBR, these resources are also useful to them to convey a sense of the process they are about to initiate. Towards the end of 2012, embedded social media videos of former CARL student and CSO contributors talking about their experience of CBR projects may further enhance this communication process on the UCC website. There are some differences between how UCC and DIT structure these support materials. For example, differences include: UCC ask for a tutor recommendation to accompany the student application form in order to establish the student's academic capacity, while DIT use a much longer application form in order to ascertain the level of the student's commitment; the DIT process map focuses on outcomes for the various stages of the process while the UCC process map places more emphasis on the final outcomes/dissemination of the research; the UCC research agreement is more formal and detailed than the DIT timeline agreement. Regardless of these minor differences, these documents form a tailored package to support the research project ideas in the on-line database, and are valuable resources for all stakeholders.

5. An effective post-application form process is crucial.

There is a clear need for focused, facilitated, equal discussion among all partners in order to initiate a CBR project following the application process. As this stage is generally well covered in the existing literature, we refer readers to what others have written on this area. Strand *et al.* (2003), for example, highlight the need for discussion to establish clear objectives for a project, agreement on the roles and tasks being taken on by each partner, and clear articulation of any concerns which partners may have, and Israel *et al*. (1998) emphasise the time commitment required from all partners to develop a research relationship as well as to finish the immediate project. CBR supervisors have to overcome the possible challenges of supervising a relationship as well as a thesis – a very different premise from supervising a more traditional lab- or library-based thesis, requiring skills in 'group process, team development, negotiation, conflict resolution, understanding and competency to operate in multicultural contexts, ability to be self-reflective and admit mistakes, capacity to operate within different power structures, and humility' (Israel *et al.* 1998, pp. 186-7). In DIT, due to our cross-institute remit, we have identified a need to deliver support on this process to first-time CBR supervisors – in order to do this we are currently considering: peer mentoring of supervisors; training workshops; and developing clear definitions of roles and responsibilities of the different participants.

6. Dissemination of research results online is very effective (if sometimes controversial).

The politics of the CBR approach to research, whereby research results are disseminated among all participants (Stoecker 2002), in conjunction with the emerging movement to promote free access to publicly funded research through the Internet (see Massachusetts Institute of Technology 2012; Gilbert and Lindholm 2011), influenced decisions by both UCC and DIT to make all of the final student research reports - subject to certain academic standards - available for free on our websites. From the UCC CARL committee's perspective these projects are publicly funded through the time contributed by staff and students, and permission to publish for free, irrespective of the nature of the findings, but taking into account the anonymity of study participants, is enshrined in the research agreement signed by the CSO and student at the three way meeting outlined earlier (Community Academic Research Links 2012). The wider dissemination facilitated by this decision has increased research impact whereby CSOs have reported back to CARL that they have been able to use and reflect upon, for their services, the research findings published on the web, even though they were not involved in the original study. This has also facilitated the networking of CSOs, students and researchers in pursing

shared goals in lobbying policy-makers and changing organisational practices. In this sense, the use of what is now widespread digital technology, increases the visibility of the research, widens dissemination and most importantly the impact of projects - the *raison-d'être* of CBR.

Staff in DIT have published a small number of completed projects on their website, and have been collecting more final reports over the course of 2011/12. The process of publication of reports on the website has been delayed by the fact that, before the introduction of the timeline agreement form in early 2011, students had no obligation to return the final research reports to SLWC, as long as the community partner had received a copy. As a result, we have had to obtain consent from the graduate, the lecturer, and the community partner, as well as obtaining a soft copy of the research, before any piece of pre-2011 research could be published on our website. In one difficult situation, the community partner was very pleased with the research report, but the academic supervisor felt that it contained many unsubstantiated conclusions, and was not happy with the idea of publishing the report as an example of work in that discipline (although it had just reached a pass standard). A compromise solution was reached involving publication of one detailed section of the report, which did meet both academic standards and community needs, but by the time the compromise had been worked out, the graduate could no longer be contacted, so the material remains unpublished. This issue was one of several which prompted the introduction of the timeline agreement form, which includes permission from the student to publish the results on the SLWC website (and a requirement for them to furnish us with a soft copy of the report), subject to the work being of a satisfactory standard to both the academic supervisor and community partner.

This commitment to publish all findings online is not a universal practice amongst CBR initiatives, and has the potential to lead to conflict with CSOs, who, for example, may wish to suppress a negative service evaluation. The decision to identify CSOs by name (but not research participants) has led to a constructive debate amongst UCC CARL academic supervisors about the practice, as it has challenged established norms on some courses whereby students anonymise their dissertations. Thus far, we have had constructive feedback from CSOs on CARL reports, but never a request to suppress a report from the website, despite some reports containing criticism of CSO practices and policy (see, for example, Coll and Scully 2011). The CARL experience, thus far, has been that, in conjunction with the informed consent process, CSOs who partake in CARL projects exhibit characteristics of learning organisations seeking to improve their service, who are open to considered feedback.

Concluding comments

HEIs in Ireland are at a(nother) crossroads and there are strong forces at work to pull Higher Education further towards a more instrumental role in meeting the needs of business and government. Boland (2012, p. 13) argues that 'Civic engagement in higher education is widely associated with such concepts and ideals as education as a public good, corporate social responsibility and universities as sites for democratic citizenship'. The European Commission has continuously called for Public Engagement in Research activities in its Framework funding calls. However, the funding – if at all – of these civic engagement initiatives domestically by HEIs could be stronger, to enhance their ability to promote staff and student civic engagement, and to meet the research needs of CSOs. While one could argue as to what extent these ideals are present and actualised in the day-to-day activities of staff, students and policy-makers in HEIs on the Island of Ireland, we have presented case studies from two HEIs where they are clearly evident in practice. There is cause for optimism regarding the expansion of these initiatives with the ground level establishment in 2011 of a new all-Ireland inter-institution network for coordinators of CBR and CBL – the *Irish Network for Community-Engaged Research and Learning*.

In this chapter, we have argued that CBR can be a rich vehicle for civic engagement in Higher Education. The utilisation of existing on-line technologies to support CBR activities can be an important element of their success. Throughout this chapter we have outlined how we use existing digital resources in our HEIs to support our work, in recruiting and supporting students, academic supervisors and community partners, and in disseminating the research results among all the stakeholders. As ever, it is not the technology itself, but the context in which it is used and supported, that will determine the effectiveness of the outcomes.

Acknowledgements
The authors would like to acknowledge the contribution of community partners, students and academic supervisors in the work of SLWC and CARL. Some of the work discussed in this chapter has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 244264 (the *PERARES* project).

Resources

Students Learning With Communities (DIT)	http://www.communitylinks.ie/slwc
Community Academic Research Links (UCC)	http://carl.ucc.ie
Living Knowledge – The International Science Shop Network	http://www.livingknowledge.org/livingknowledge/
Queens University Belfast Science Shop	http://www.qub.ac.uk/sites/ScienceShop//

References

Boland, Josephine. 2012. "Orientations to civic engagement: insights into the sustainability of a challenging pedagogy". *Studies in Higher Education.* Advanced Internet Edition. DOI: 10.1080/03075079.2011.648177.

Burns, Kenneth. Kerry Cuskelly and Steven Peet. 2012. *Practice Links*. http://www.ucc.ie/en/appsoc/aboutus/activities/pl/. Social Work Development Unit/School of Applied Social Studies. Accessed 1st June 2012.

Community Academic Research Links. 2012. *CARL Research Agreement.* http://www.ucc.ie/en/database/. University College Cork. Accessed 1st June 2012.

Coll, Monica and Siobhan Scully. 2011. *Respite care services for families caring for a person with an intellectual disability: Decision making, experience and models of respite*. http://www.ucc.ie/en/scishop/completed/. Community Academic Research Links/University College Cork. Accessed 21st June 2012.

Hunt, Colin. 2011. *National Strategy for Higher Education to 2030 – Report of the Strategy Group*. Dublin: Government Publications Office.

Gall, Éric, Glen Millot and Claudia Neubauer. 2009. *Participation of Civil Society Organisations in Research, STACS final report.* Available at: http://www.livingknowledge.org/livingknowledge/wp-content/uploads/2011/12/STACS_Final_Report-Partic.research.pdf. Accessed 26th June 2012.

Gilbert, Jonas and Jessica Lindholm. 2011. "Establishing an Open Access Culture among Researchers: Experiences and Challenges at Two Academic Organizations in Sweden". *Serials Review*. 37(2): 67-69.

Hende, Merete and Michael Søgaard Jørgensen. 2001. *The Impact of Science Shops on University Curricula and Research, Scipas Report No. 6.* Available at: http://www.livingknowledge.org/livingknowledge/wp-content/uploads/2012/02/wp6-so.pdf. Accessed 26th June 2012.

Israel, Barbara A., Amy J. Schulz, Edith A. Parker, Adam B. Becker. 1998. "Review Of Community-Based Research: Assessing Partnership Approaches to Improve Public Health." *Annual Review of Public Health*. 19: 173–202

Kirby, Peadar and Mary P. Murphy. 2011. *Towards a Second Republic: Irish Politics after the Celtic Tiger*. London: Pluto Press.

Macdonald, Geraldine. 2003. *Using Systematic Reviews to Improve Social Care*. London: Social Care Institute for Excellence.

Massachusetts Institute of Technology. 2012. *Scholarly Publishing @ MIT Libraries. Open Access at MIT.* http://libraries.mit.edu/sites/scholarly/mit-open-access/. Massachusetts Institute of Technology. Accessed 11th June 2012.

Max-Neef, Manfred A. 2005. 'Foundations of transdisciplinarity'. *Ecological Economics*. 53: 5–16.

McMahon, Frank. 2010. *DIT Strategy for Widening Participation*. Available at: dit.ie/media/documents/wideningparticipation/StrategyonWideningParticipationApril2010.pdf. Accessed 26th June 2012.

Mulder, Henk A.J. Thomas Auf der Heyde, Ronen Goffer, Carmen Teodosiu. 2001. *Success and Failure in Starting Science Shops, Scipas Report no. 2.* Available at http://www.livingknowledge.org/livingknowledge/wp-content/uploads/2012/02/wp2-so.pdf . Accessed 26th June 2012.

Strand, Kerry J., Nicholas Cutforth, Randy Stoecker, Sam Marullo, and Patrick Donohue. 2003. *Community-Based Research and Higher Education: Principles and Practices*. San Francisco: Jossey-Bass Higher and Adult Education.

Stoecker, Randy. 2011. "Origins and Principles of Community-Based Research". *Community-Based Research and Higher Education*, Jossey-Bass.

Stoecker, Randy. 2002. "Practices and Challenges of Community Based Research". *The Journal of Public Affairs*. VI: 219-239.