

Article

Researching the Professional-Development Needs of Community-Engaged Scholars in a New Zealand University

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Abstract: We explored the processes adopted by university teachers who engage with communities with a focus on asking how and why they became community-engaged, and an interest in what promotes and limits their engagement and how limitations may be addressed. As part of year-long research project we interviewed 25 community-engaged colleagues and used a general inductive approach to identify recurring themes within interview transcripts. We found three coexisting and re-occurring themes within our interviews. Community-engaged scholars in our institution tended to emphasise the importance of building enduring relationships between our institution and the wider community; have personal ambitions to change aspects of our institution, our communities, or the interactions between them and identified community engagement as a fruitful process to achieve these changes; and identified the powerful nature of the learning that comes from community engagement in comparison with other more traditional means of teaching. Underlying these themes was a sense that community engagement requires those involved to take risks. Our three themes and this underlying sense of risk-taking suggest potential support processes for the professional development of community-engaged colleagues institutionally.

Keywords: community engagement; student placement; education for sustainability; scholarship of engagement; academic roles; functions for higher education

1. Introduction and Theoretical Underpinning

Most descriptions of the roles of higher education include research (solving problems and contributing to the wealth and health of sponsoring societies), teaching (supporting the development of the next generation of creative, economically active and influential citizens, and the next generation of academics), and service (incorporating diverse functions in support of society). Service, or the third mission, generally overlaps markedly with research and with teaching. Much research is conducted for, or in conjunction with, wider society; and teaching often extends into communities, in the form of ‘University Extension’, or ‘Adult and Continuing Education’ with a focus on ‘educating the community’; and ‘Service Learning’, with a focus on educating students in the community. In some cases, the third mission includes the role of ‘critic and conscience of society’; and sometimes ‘service to the community’, often in the form of volunteering. Increasingly, the third mission is also being seen as synonymous with ‘technology transfer’, ‘research commercialisation’, ‘innovation’ [1] and with links to higher education’s contribution to private and public elements of national ‘good’ [2].

Boyer’s work on academic scholarship in the 1990s established various forms of community engagement (CE) as elements of university work and elaborated the concept of the scholarship of engagement [3] with a particular focus on developing partnerships between universities and their sponsoring societies. Gelmon, Jordan, & Seifer [4] (p. 59) emphasised that “Universities ... are

increasingly expected to play a leadership role in addressing problems of the larger community by engaging with practitioners outside of the academy” and provide a useful summary of the current status of community-engaged scholarship, with strong links to a wide range of less conventional university roles. Even so, the concept of ‘service’ as something that ‘we in the University do for them in the community’ remains firmly embedded within higher education.

The situation in New Zealand may be particularly interesting to community-engaged scholars internationally, and perhaps particularly to those with an interest in research involving environmental, cultural, social, and economic sustainability. A significant body of research funding has recently been committed via National Science Challenges [5] demanding more measurable and visible contributions to our environmental and social well-being, and national productivity, with greater emphasis than previously on partnership and cooperation. There are also strong links between these ideas and the recently released National Strategic Plan, ‘A nation of curious minds’ that promotes “a better engagement with science and technology across all sectors” [6]. Community engagement is also a new contributory element within this country’s performance-based research funding model (affecting how funds are allocated amongst research-active institutions); a change that could be interpreted as part of a national strategy to promote partnerships between communities and universities. These developments do need to be seen, however, in the context of a highly distributed, diverse and somewhat embattled adult and community education system in New Zealand [7] that is currently modestly funded “to provide community-based education, foundation skills, and pathways into other learning opportunities that meet community learning needs” [8].

These international and national trends and expectations are reflected in our own institution’s strategies. The University of Otago, in its Strategic Directions to 2020, acknowledges its research contribution to solve the world’s problems, its role as critic and conscience of society, its own efforts in community service and outreach, and its expectations that its students will ‘give back’ to the society that subsidises their education [9]. This university also monitors community-engaged activity, diversity, and hours [10].

It is less clear that university colleagues at this institution and elsewhere in New Zealand are sufficiently prepared to undertake these expectations of community engagement. Our own institution does not have a community-engagement support office as might be common in universities in the USA, for example, and community-engaged colleagues frequently identify as relatively isolated self-starters [11,12]. Our own institution’s processes of support for new university teachers have not traditionally addressed community-engaged scholarship. Blanchard, Strauss, and Webb (2012), in describing successful campus integration of community engagement, emphasise the challenges involved in faculty development for community engagement even within an institution with a long tradition of community-engaged scholarship [13]. Gelmon et al. [4] suggest that the ongoing development of community-engaged scholarship is limited by the capacity of faculty (academic staff) to become community-engaged, and institutional capacity to recognise and support community engagement. Similar concerns have been expressed about community-engaged scholarship in Australia [14]; “While students and the [community] organisation have engaged wholeheartedly, it is in many ways the university that has still to realise the newly created potential for invigorated curriculum change and practice-driven research agendas” [14] (p. 357); and in an African university/community context [15].

This article describes one aspect of a year-long research project that sought to record, describe and interpret the perspectives of those university colleagues who are community-engaged, about their community engagement. We included within our research horizon colleagues involved in outreach (extension or community education), those who teach students within or in partnership with community-based entities, and those who conduct their research within, for, or with external (with respect to the university) communities and employers. Our research had a broad focus on identifying the professional development needs of colleagues within our institution with an intention of supporting institutional learning, to enhance community education by considering practices already underway

in the university, and to contribute to a national discourse on community-engaged scholarship. Our research explored why and how university teachers became community-engaged, the communication devices that they used to prosper as community-engaged scholars, and the means that they adopted to evaluate the impact of their community engagement on themselves, their department and institution, their students, and the wider community.

This article addresses the first facet of our research; asking university people how and why they became community-engaged, to support our interest in what promotes and limits their engagement, and how limitations may be addressed.

2. Materials and Methods

Our research developed around the work of a core research group (the authors of this article) that met approximately fortnightly over a 12-month period (starting in May 2015) to plan activities, share readings and to deliberate on findings. The group invited community-engaged university people (including academic and general, or support, staff) to these meetings to enable our deliberations to include specific and relevant contexts. We were, for example, on occasions joined by specialists in outreach, science communication, learning technologies, social media and educational design, all of whom contributed to the understanding achieved by the research group of the context of community engagement at this university. These colleagues also provided opportunities for the research group to discuss incoming research findings with specialists so as to test developing interpretations and understanding as our learning progressed.

Incorporating workshops into our research schedule further developed a process of reciprocal and reflexive learning. The first workshop, in November 2015, was designed to introduce the project to more University of Otago people, to widen the base of interest and input, and to better understand the concerns of community-engaged people. The second occurred at the annual TERNZ conference (Tertiary Education Research New Zealand, December, 2015), enabling members of the research group to interact at a national level with like-minded academic staff from many tertiary institutions interested in community engagement in a 'scholarship of teaching and learning' context. A third opportunity arose in an online workshop in February 2016, focussing on distance learning. All three provided one or more researchers with opportunities to discuss the project's objectives with a wide range of community-engaged university people. Three further workshops at the University of Otago held in May and June 2016 supported the researchers in their attempts to discover if their findings resonated with the perceptions of colleagues from the wider academic community.

At the heart of our research work were interviews with community-engaged university people across all four divisions of the university (Commerce, Humanities, Health Science, and Sciences). The roles people held included professional-practice fellows, teaching fellows, senior/lecturers, heads of departments, associate professors, and professors. Interviews were conducted with University of Otago ethical research consent that emphasised participant anonymity and voluntary contribution. Some interviewees were recruited to this study via an email to members of this institution's Community Engaged Learning and Teaching Special Interest Group (CELT SIG). Some interviewees were attracted to the project by word of mouth, or via its promotional workshop in November 2015. Others had taken part in prior research [12]. Throughout the year, 25 interviews took place, conducted by two research assistants working to a common process. Interviews were semi-structured; building around seven guiding questions that had been developed by the research group and piloted previously in (non-contributory) interviews with community-engaged colleagues. The semi-structured nature of the interview process enabled flexibility but also maintained the same overall format for each interview, facilitating interpretation [16].

Our guiding questions were:

- (1) What kind of community engagement do you do?
- (2) How did you establish the engagement? (Possibly including-identify community need, build relationships, design the programme, help from department)

- (3) What role do students have? (Possibly including—how do you prepare students)
- (4) How are you evaluating the engagement (from various partner perspectives)?
- (5) Any successes, failures, challenges, strategies?
- (6) How are you communicating with partners/the community in relation to this community engagement? (Possibly including—whether this communication process has been successful or not?)
- (7) Why do you ‘do’ community engagement?

As described by Straus and Corbin [17], “The researcher begins with an area of study and allows the theory to emerge from the data”. Interviews were recorded and transcribed and subjected to qualitative analysis by researchers with three spheres of interest. The data was initially coded as primarily related to ‘building community engagement into academic activities’, ‘communication processes’, or ‘evaluating impact’. Within each sphere of interest, Thomas’s inductive approach was then used to identify commonly encountered themes. “Inductive analysis refers to approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher” [18]. Initial thematic analysis was conducted by the interviewer, using either NVivo or ATLAS.ti to assist in coding and aggregating data, but was shared, with contributory and anonymous quotations extracted from transcripts, with the wider research group throughout the latter half of the project period, allowing the themes to be re-explored, re-cast, and tested on many occasions.

3. Results

Our analysis suggests the presence of three coexisting themes that collectively describe how community-engaged academics in our institution conceptualise their experiences of becoming community-engaged. These themes do not necessarily differentiate conceptualisations with respect to different entities (university people, students, communities, and the institution) but rather reflect the ways in which community engagement is valued by any or all of these entities, from the perspectives of our interviewees. In the text and quotations below, terms or references that might detract from our anonymity assurances have been replaced by ##. All quotations are from community-engaged university academics or support staff, but to maintain anonymity we have not been more specific.

3.1. Building and Maintaining Relationships Is Key to Successful Community-Engagement

Irrespective of the particular nature of the community engagement involved, interviewees almost universally identified the task of building and maintaining relationships with the wider community as an essential and defining feature of their engagement.

Some interviewees emphasised the challenges of starting off, with an emphasis on building trust;

“Some of it’s quite philosophical—at a values level so peer-learning relationship, rather than expert, fixer, giver—what I used to call knight in shining armour syndrome—so building culture of doing with, rather than doing for or to—there may be some of that that arises but it’s a two-way learning relationship where people are bringing different strengths to it. So going in with learner’s mind-set first and offering time etc. is a really respectful way. Co-creation of what the ‘doing together’ actually looks like and really spending time building the relationship and understanding the community’s context and figuring out where’s the value alignment and resource constraints, understanding the really ambiguous accountabilities the community’s got. Understanding the layers upon layers of stakeholders that sit behind anything you might do together.”

“So it’s very much dependent on a good relationship and trust with people so that they know who I am, a researcher and this is what I’m doing, but it’s a constant back and forth of checking in: are things ok, I’m interested in this part of some of the stuff we’ve been

discussing over the last year, 'What do you think about it? How do you feel if I use it?' kind of thing."

Within this theme, at least one interviewee was keen to emphasise that her commitment was not instrumental with respect to what she might gain from the relationship, but rather an investment for the future, and for the principle of service;

"I think developing relationships when there's not a research grant sitting there. So having some sort of relationship that you just do it as part of your service, right, something will probably come from it . . . But we can, as academics, play the longer game . . . "

Many interviewees emphasised the long-term nature of their community engagement, and the personal commitment associated with this;

"You know that kind of research, it often ends up being a lifetime commitment and relationship, and if it's not then it can be very damaging, not only for the community but for the researcher personally and professionally."

" . . . and then that sort of reflective process afterwards as well involving your participants and thinking about that on-going. You know 'is that the project and it's done?' or 'is there an on-going relationship and how do you continue to nurture that after you've completed that paper?' . . . "

. . . and that these long-term engagements may need dedicated institutional support to maintain;

" . . . because community groups' needs aren't gonna fit neatly and tidily into the package of when people run the course. So if you're talking about longer-term real community engagement you're talking about investing in long-term relationships and I would see that ##'s role could potentially grow from here."

Many interviewees emphasised the overt reciprocating nature of their engagement and how this was in some senses the key to their longevity;

"There's got to be a two-way relationship, you know, we have to be able to help them. It's nice we're providing an exercise class and people's health; it does seem to go both ways. They're supporting me and educating my students and I'm supporting them and helping with their health."

"I suppose originally the programme was designed for schools, to support schools and now it's more a case of the schools supporting our students and making our students, helping our students develop skills that are different to what they are going to get by following routine lab work in the department."

3.2. Community-Engaged University-People Generally Have a Significant Change Process in Mind

A common thread through most interviews was the passion of the interviewee for social change or for change in the ways that universities worked. They had identified a need for change and that community engagement might be one way that they could personally contribute to that change;

"We live in a neo-liberalised uni which is very much encouraging you to shut down, shut your door and just do the outputs, single-authored outputs as well. And don't have solidarity. Your teaching is instrumental, it's just about pushing your students through with useless degrees, and I think one way of resisting that is saying, 'No! I'm actually going to be community-focused rather than [an] individualised scholar.' And I do think the department supports that."

“And so the students were super-engaged in that, and through that process they wanted to, we used that as a way to draft a joint submission to the Council and the students were really engaged in that and asked the Council to come and make a specific presentation to us in the class. And as a result of that they’re now on the sort of advisory committee for that environment strategy.”

“I was conscious that I wanted the students to be working in relevant ways, in ways that were relevant and connected with the local ecology and that included the ## communities but it also included the environment.”

Sometimes interviewees emphasised that the nature of the desired change came from the students;

“... thought it would only work if students were passionate—what was the change they want to see in the world? What’s good about the world and what’s the issues that they’re passionate about? So in first lecture got them thinking about that and their values ... ”

... and sometimes the impetus for change came from the community, with the university providing the means whereby change could be achieved;

“... we’ve seen this huge growth of awareness around people who, it’s not that they want to do exercise and be gym bunnies and be fitter and healthier, but it’s that they feel that they have the right to do that if that’s what they want to do, and they have resources and the support and the venue to be able to do that.”

3.3. Community-Engaged University-People Have Ambitious Learning Expectations for Their Students and for Themselves

A theme that resonated in many interviews relates to the learning that stems from the experiences of community engagement, with an underlying conviction that such learning is somehow deeper or more penetrating than it might otherwise be, and therefore worth additional effort. In most cases, such learning was articulated as something achieved by students;

“You know, understanding empathy, which is difficult to put, you know you don’t find that in the strategic plan of the university or not in those words.”

“She learnt that ability to think on her feet. I mean that’s one of the things that [community engagement] gives [to] our students, although it’s not in the student graduate attributes, but you know it’s something that is really important. They can think on their feet, think outside the box.”

But often, interviewees also identified their own learning amid their commitment to, and enquiry, about student learning;

“I guess that’s one of the beautiful things about community engagement is that you actually learn how really kind of messy and out of control the real world is out there in the community, and how difficult it is to try and develop research programmes that might actually appeal or be meaningful to that messy world.”

4. Discussion

We start with an interest in the perspectives of university colleagues who are actively engaged with communities outside of the university, about their community engagement, as a means to better understand their professional-development needs to be community-engaged. An implicit assumption within this research is that community engagement is in essence a good thing, that needs to be, and deserves to be, supported. Although our research yields data that supports this focus on professional-development needs, it also emphasises the complexity of the scholarship of engagement

as experienced by university teachers in New Zealand; and that an understanding of this complexity does need to contribute to our process of data interpretation.

Historical financial support for university-based adult and community education has been dramatically reduced [7] and, to a degree, has been replaced by a range of government-funded initiatives designed to create opportunities for community engagement that might yield monetary, environmental, and social outcomes hoped for by the government of the day. The operation of universities in New Zealand is, meanwhile, deeply rooted in this country's legislation, as defined for example by the Education Act (1989), expressing a strong need to promote community learning while maintaining the academic freedom of its institutions, teachers, and students to do so as they deem appropriate (subject, of course, to public scrutiny) [19]. Universities in New Zealand, like others elsewhere, compete at an international level for funding, for students, and for recognition. They have also expanded rapidly in recent years. Universities have generally responded with larger class sizes, and smaller staff/student ratios, but also with more community-based education. This has created: the need for more student placements within communities; [20]; more outreach (often to attract students into particular disciplines; see for example [21]) and, often, institutional encouragement for academic staff to become community-engaged to, for example, further their research impact. Alongside this diversity of rationale, community-engaged academics in New Zealand have diverse conceptualisations of the nature of their engagement. Previous research at our university, for example, found that university people talked about their community engagement in three relatively distinct ways: within an expert/novice discourse (as in helping communities to better understand difficult ideas), as advocacy (in particular for science, within communities perceived to be in some way hostile to science), and in the most complex conception, as reciprocal learning (as in creating mutually beneficial learning and development) [12]. More widely, the multiple ways in which reciprocity is conceptualised has been emphasised [22]. With an appreciation of this complex situation comes a realisation that harnessing the power of university/community engagement for any particular social project, such as increasing the cultural, economic and environmental sustainability of sponsoring societies, is likely to be equivalently complex. Similarly, and with respect to the aims of our present research, attending to professional development needs, in the face of such diversity, will not be straightforward.

Nevertheless, there do appear to be commonalities in the 'how and why' of community engagement, as described by community-engaged people, that helps us to understand how colleagues navigate this complex situation and how professional development support could help.

University people who are community-engaged in our study were driven by their need to contribute to change. This in turn emphasised their perception that community engagement provides a vehicle to achieve such change. Individuals sought change: in the fitness and health level of local populations; in the well-being of local and national environments; in how local people recognise and value environment and ecology; in the ways in which the university and its teachers and researchers are described and valued, within the University and from outside; in how students fit into current models of university teaching; in their own satisfaction of the job that they do; and much more besides. Many of our interviewees were also and independently active in their communities outside of the university, such as supporting food-bank networks and conservation groups. Some engaged in community education activities only partially related to their university roles, such as supporting the Free University and providing guidance to not-for profit community-based organizations. Researchers also gained a sense that community-engaged practitioners considered their activities as 'game changing' how traditional roles of higher education are valued within the institution. As one interviewee suggested, with respect to the research/teaching nexus;

"And it's also taken a long time for me to realise actually what I'm doing is as valid as anyone else's work. Because it's not research, and that's always going to be an issue in a science department."

By and large, the changes did not relate to conventional university ideas of pushing forward the boundaries of knowledge, nor did they generally have any direct link to research-related revenue. Motivation for change in the contexts described by nearly all of our interviewees was

essentially altruistic. It is possible, of course, that our sampling approach attracted interviewees who conceptualised their community engagement in these ways, and not in others. Those who engage in research with other priorities involving communities may not, for example, conceptualise their activity as community-engagement. They may not have volunteered to be involved in research into community engagement and are unlikely to be members of our Community Engaged Learning and Teaching Special Interest Group. Gelmon et al. [4] described a diversity of ways in which university people conceptualise community engagement. For many, including some contributors to our research, the concept of change is closely related to participation, in particular participation in research. Internationally, participatory action research is seen as a tool to empower communities and to promote social change [23]. In this context, support for professional-development could usefully focus on helping community-engaged colleagues to clearly articulate the nature of the change hoped for and developing processes suitable for monitoring the achievement of change (Shephard et al. in preparation).

Another dominant theme in our interviews was that of the imperative of building relationships that last, with an emphasis on the level of personal commitment necessary. Long-term commitment is repeatedly emphasised in the community-engagement literature; for example, by Tolich et al. [20] and by Gelmon et al. [4]. Commitment to building in sufficient time into projects for reflection on experiences, and for learning, is also emphasised by, for example, Banks and Manners [24]. There was a sense running through the interviews that trust between institution and community could not be taken for granted and indeed may have been eroded in the past (as, for example, described by Tolich et al. [20] with respect to sociologist and discussed by Tollefson [25] with respect to scientists). In this context, support for professional development could usefully focus on building sustainable support-networks for community-engaged scholars and it will be important for our institution to learn from others how, for example, community-engagement support offices operate in other countries.

Our third theme emphasises the power of community engagement to create lasting, powerful, or deep learning, as conceptualised by community-engaged teachers. There is a strong thread in the literature associated with scholarly teaching and learning that some approaches to teaching are more likely than others to promote deep learning [26] or to have a high impact on learning [27]. Central to many of these approaches is the need for learners to engage in reflection on their experience and the need for teachers to understand the power of reflection on their own and on their students learning [28]. As suggested by one interviewee:

“There are so many kinds of little ingredients, you know, that have to be measured so precisely that you kind of lose sight of the whole meal in a way. And so I think it’s important to step back and go for what purpose? For what good? Why?”

It seems likely that in the minds of some of our community-engaged interviewees the power of community engagement extends beyond any particular curriculum that may have been designed and approved by the institution. Rather, students and community co-construct knowledge during the course of community engagement. One of the most powerful expressions of this co-construction is a change in the worldview of students to, for example, include community and society within their knowledge mind map (Warren et al., in preparation). Other authors have commented on perceived problems in science education that result in students progressively losing social awareness as they progress through their science education [29]. In this context, support for professional-development for community-engaged scholars could usefully focus on developing appropriate assessment and evaluation processes that will enable teachers to properly evaluate the learning that their teaching inspires. In the context of engagement between indigenous communities and higher education practitioners in Aotearoa New Zealand, Kaupapa Māori approaches reflect a particular context for evaluation of community engagement. Kaupapa Māori approaches are intrinsically relational, and follow tikanga principles such as negotiation and debate in accordance with a Māori worldview. From a New Zealand perspective, and in the context of higher education, culture represents a central aspect of evaluation.

Our data yielded one other insight, sufficiently frequently to describe, but not general enough to identify as a reoccurring theme. Some interviewees identified the risks that they perceived that they and others were taking in becoming community engaged. One interviewee, for example, emphasised the unpredictable and innovative nature of community-engaged scholarship with concomitant inability to plan ahead in the way that most institutions require;

“Someone that does that [community engagement] every year for their course and just talking with him, the incredible risk and anxiety that he felt the first time he did it because walking into a class where students are expecting you to tell them what the course is about and saying ‘I’ve got nothing! There’s a whiteboard here, let’s start creating it’. [It] is a huge gamble, but he was supported institutionally.”

Another interviewee described a threat to career;

“Community engagement can interfere with career progression because the process is messy and time consuming, you cannot be strategic in your career. Personal values mean the commitment to community engagement is more important and enjoyable.”

This insight introduces what may be seen as a necessary commitment by institutions that value community engagement; to accept its consequences on, for example, traditional conceptions of good or excellent academic work. Is a good researcher one who publishes frequently and moves from funded project to project rapidly, or one who achieves less, but who takes the risk to career in building strong and enduring relationships with a sponsoring society? Is an excellent teacher one who year after year teaches the same material in the same way and receives high praise from the students involved, or one who is innovative and takes risks with possible consequences to student approval and career progression? The perceived inability of New Zealand’s tertiary education institutions to take risks and to embrace innovation was a feature of a recent review of New Zealand’s tertiary education system; “In many respects, the system stymies or prohibits innovations, punishes risk-takers, and reinforces existing practices” [30]. Although some of our interviewees clearly felt supported in taking risks, it is possible that the availability of understanding heads of departments and other senior academics who are sympathetic to community engagement may provide a limiting factor to further development of community engagement in our institution. Researchers wonder, therefore, if the most important lesson for us to come from this research with respect to the professional development needs in our institution lays with academic leaders and how they are supported, developed, and chosen, rather than with more junior colleagues.

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References

1. Harman, G. Australian university research commercialisation: Perceptions of technology transfer specialists and science and technology academics. *J. High. Educ. Policy Manag.* **2010**, *32*, 69–83. [CrossRef]
2. Marginson, S. Public/private in higher education: A synthesis of economic and political approaches. *Stud. High. Educ.* **2016**. [CrossRef]
3. Boyer, E.L. From Scholarship Reconsidered to Scholarship Assessed. *Quest* **1996**, *48*, 129–139. [CrossRef]
4. Gelmon, S.B.; Jordan, C.; Seifer, S.D. Community-Engaged Scholarship in the Academy: An Action Agenda. *Chang. Mag. High. Learn.* **2013**, *45*, 58–66. [CrossRef]
5. Ministry of Business. Innovation and Employment National Science Challenges. Available online: <http://www.mbie.govt.nz/info-services/science-innovation/national-science-challenges> (accessed on 12 August 2016).

6. Ministry of Business. Innovation and Employment A Nation of Curious Minds—He Whenua Hihiri i te Mahara. Available online: <http://www.curiousminds.nz> (accessed on 12 August 2016).
7. Geertshuis, S. Paying for Community Education. *J. Adult Contin. Educ.* **2011**, *17*, 63–80. [CrossRef]
8. Tertiary Education Committee. Adult and Community Education. Available online: <http://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/ace/> (accessed on 22 May 2017).
9. University of Otago. University of Otago Strategic Directions to 2020. Dunedin, New Zealand. Available online: <http://www.otago.ac.nz/otago053226.pdf> (accessed on 27 June 2016).
10. University of Otago: University of Otago Bulletin Board. Uni News: Community Service Figures Remain Strong. Available online: <http://www.otago.ac.nz/otagobulletin/news/Otago069893.html> (accessed on 30 August 2016).
11. Hesson, G.; Moskal, A.C.M.; Shephard, K. Using Visual Analytics to Explore Community Engaged Learning and Teaching at the University of Otago. Available online: <http://ascilite.org/conferences/dunedin2014/files/concispapers/133-Hesson.pdf> (accessed on 14 July 2017).
12. Brown, K.; Shephard, K.; Warren, D.; Hesson, G.; Fleming, J. Using phenomenography to build an understanding of how university people conceptualise their community-engaged activities. *High. Educ. Res. Dev.* **2016**, *35*, 643–657. [CrossRef]
13. Blanchard, L.W.; Strauss, R.P.; Webb, L. Engaged scholarship at the University of North Carolina at Chapel Hill: Campus integration and faculty development. *J. High. Educ. Outreach Engagem.* **2012**, *16*, 97–128.
14. Harris, L.; Jones, M.; Coutts, S. Partnerships and learning communities in work-integrated learning: Designing a community services student placement program. *High. Educ. Res. Dev.* **2010**, *29*, 547–559. [CrossRef]
15. Mbah, M.F. Towards the idea of the interconnected university for sustainable community development. *High. Educ. Res. Dev.* **2016**. [CrossRef]
16. Dunn, K. Interviewing. In *Qualitative Research Methods in Human Geography*; Hay, I., Ed.; Oxford University Press: Oxford, UK, 2000; pp. 50–82.
17. Strauss, A.; Corbin, J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 2nd ed.; Sage: Thousand Oaks, CA, USA, 1998.
18. Thomas, D.R. A general inductive approach for analyzing qualitative evaluation data. *Am. J. Eval.* **2006**, *27*, 237–246. [CrossRef]
19. New Zealand Legislation Education Act 1989. Available online: www.legislation.govt.nz/act/public/1989/0080/latest/DLM175959.html (accessed on 22 May 2017).
20. Tolich, M.; Shephard, K.; Carson, S.; Hunt, D. Co-managing the sustainability of University internship programmes in brownfield sites. *N. Z. Sociol.* **2013**, *28*, 156–170.
21. Futureintech Ambassador Handbook. Available online: <http://www.futureintech.org.nz/ambassador-handbook/classroom-resources.cfm> (accessed on 10 May 2017).
22. Dostilio, L.; Brackmann, S.M.; Edwards, K.E.; Harrison, B.; Kliewer, B.W.; Clayton, P.H. Reciprocity: Saying what we mean and meaning what we say. *Mich. J. Community Serv. Learn.* **2012**, *19*, 17–32.
23. Silverman, R.M.; Patterson, K.L. *Qualitative Research Methods for Community Development*, 1st ed.; Routledge: New York, NY, USA, 2015.
24. Banks, S.; Manners, P. Community-Based Participatory Research: A Guide to Ethical Principles and Practice. Available online: http://www.publicengagement.ac.uk/sites/default/files/publication/cbpr_ethics_guide_web_november_2012.pdf (accessed on 14 July 2017).
25. Tollefson, J. Climate science: An erosion of trust? *Nature* **2010**, *466*, 24–26. [CrossRef] [PubMed]
26. Biggs, J.; Tang, C. *Teaching for Quality Learning at University*; Society for Research into Higher Education & Open University Press: Maidenhead, UK, 2007.
27. Kuh, G.D.; Schneider, C.G. Association of American Colleges and Universities. In *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*; Association of American Colleges and Universities: Washington, DC, USA, 2008.
28. Ash, S.L.; Clayton, P.H. Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning. *J. Appl. Learn. High. Educ.* **2009**, *1*, 25–48.

29. Cech, E.A. Education: Embed social awareness in science curricula. *Nature* **2014**, *505*, 477–478. [[CrossRef](#)] [[PubMed](#)]
30. New Zealand Productivity Commission-Te Komihana Whai Hua o Aotearoa. New Models of Tertiary Education: Issues Paper. Available online: <http://www.productivity.govt.nz/inquiry-content/2683?stage=4> (accessed on 22 May 2017).



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